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PROFILE OF PERU

Background paper for the November 1987
Perú meeting, prepared by G. Thornberry,
LARO Regional Deputy Director, with the
collaboration of Hernán Jaramillo.

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FOREWORD

The purpose of the present document is to provide general references about Perú, its history and its main development issues and problems.

Part One is a very schematic historical review that might help to understand better current circumstances and future prospects.

Part Two summarizes the main aspects of each one of the 13 development issues and problems identified in Part Two of the document "IDRC Activities in Perú". Due to constraints imposed by available time and information, not all of these issues are analysed with the same detail. However, the intention is to provide general notions of the research problems that will be discussed in the Perú meeting. Several sources have been consulted, including official documents, international organizations' reports, journals, periodicals, books, and IDRC documents and project summaries.

The document is for internal circulation only.

PART ONE

HISTORICAL NOTES

It has been said that Perú has an impossible geography. The third largest country in South America, only a very small percentage of its land area is usable for agricultural purposes (estimates range between 8% and 15%). Traditionally, the country descriptions divide it into three main natural regions. A narrow coastal strip, mostly desertic and crossed by 36 seasonal rivers, that only accounts for 11 per cent of the national territory but is inhabited roughly by half of the total population. The coastal valleys are fertile but require irrigation to produce cotton, rice or sugar, the three main regional crops. The Andes, covering more than a quarter of the country, run North to South divided in three mountain ranges. High peaks (the highest being the 22,205 ft. Huascarán) and deep ravines constitute a formidable barrier between the coast and the Amazon region and creating a disadvantageous hydrological division by which barely a hundred miles from the Pacific Ocean all the important rivers become part of the Atlantic-flowing Amazon system. The land here is poor for agriculture but has the richest mineral deposits. Its population now reaches about 30% of the total. The Eastern slopes of the Andes lead to vast tropical forests and the Amazon region, which account for slightly less than two-thirds of the Peruvian territory and are inhabited by only 11% of the total population. Most of the arable land in this area is located in the Eastern foothills of the Andes (called the "jungle eyebrow").

In spite of its beautiful and varied landscape, the country's dramatic and difficult topography has posed enormous obstacles to development. Natural disasters are frequent and sometimes devastating, communications and transportation difficult and costly, national integration slow and painful. But nature cannot be blamed entirely for Perú's current woes. History has taken a large toll and has a significant weight on a country with such a long and intense cultural past. In fact, ancient Peruvians were extremely creative in accomodating to such an environment developing a culture adapted to its demands and threats, and taking advantage of its huge potential benefits.

Indigenous cultural development, conquest and colony

When the Spanish conquistadores landed in Perú in 1532, the territory already had a human history dating back 20 thousand years, of which the Inca empire represented only a very short and recent development. For thousands of years its inhabitants patiently developed agricultural practices, bred plants and domesticated animals suitable to the different climates and soil composition. Archaeological findings reveal not only advanced techniques in pottery, textiles and architecture but also a most sophisticated social and economic order. Indeed, one of the most impressive achievements of ancient Perú's ethnic groups is the economic and socio-political system denominated "the vertical control of a variety of ecological floors", designed to take advantage of the various and close micro-climates created by the differences of altitude in the Andes. Ethnic groups held plots of land at differing altitudes, growing maize, potatoes, quinoa, tarwi, and other indigenous grains, as well as coca leaves and hot peppers in the Eastern Andean foothills. Flocks of llamas and alpacas grazed in the high level pastures, producing wool and meat and acting as beasts of burden. The sea was also a part of the whole production order in some cases, providing fish, seafood, salt and a valuable ritual object: seashells.

During the fifteenth century the Incas rapidly conquered a territory covering the length of the Andes and the Pacific coast from what is currently Northern Ecuador to Central Chile, but recent discoveries reveal they had also a strong presence in vast jungle areas. The Incas developed a large army and military skills that helped them to achieve their expansionist objectives subduing other groups through negotiation or war. The Incas were also extremely skillful in developing an efficient State bureaucracy, in charge of organizing, controlling and distributing production. Its basic communal and productive unit was the *ayllu*. Several *ayllu* were grouped together under local chieftains (*kuracas*) who held larger landholdings of their own. Although they were authoritarian rulers, the Incas never took physical surplus from the *ayllus* but only labour force to work the lands of the Inca and for the construction and maintenance of an impressive infrastructure of roads, agricultural terraces, irrigation systems and military fortresses. In spite of sharp discrepancies among historians about the "nature" of this society, there is broad consensus that the Incas managed to ensure basic material necessities for a rather large population (estimates vary substantially but it was certainly of more than ten million for the whole empire), an achievement never since equalled in Peruvian history.

The Spanish invasion altered this organized world and destroyed most of its basic features. Mining for export to Spain became the central activity around which the whole colonial economy orbited. Peruvian gold and silver were used to finance European wars and ended in the hands of merchants and bankers in The Netherlands, the Italian peninsula, France and Great Britain. It is estimated that up to two thirds of European commercial and industrial development was financed with precious metals from the Spanish South American colonies. Agriculture occupied a subordinated function in the colonial order, catering for the miners and the population of the urban settlements that flourished near the mines.

The arrival of the Spaniards also meant a demographic catastrophe, due to new diseases to which the natives had no resistance. The total population reduced to around two million by the turn of the seventeenth century, and a historian contends that the people suffered no less than seventeen epidemics between 1520 and 1600. The importation of slaves from Africa was used by the Spaniards to increase the supply of labour for the coastal plantations, since the Indian population was wiped out by disease in many coastal valleys, or simply fled to the highlands. Indian labour was confined to the mines, small textile mills (called *obrajes*), and agriculture in the highlands estates, where production was organized along more feudal lines, with Indians receiving plots of land in return for their labour.

Another dramatic consequence of Spanish rule was the foundation of Lima on a coastal site. For milleniums the Andes had exercised, a dominant political and cultural position over the territory in economic terms. Shifting the centre of power from Cusco to Lima had a decisive effect on the future development of Perú. It meant turning the back to the Andes, and vesting economic and cultural interest to Europe. Thus, while Lima enjoyed the monopolistic privilege of handling the entire trade between Spain and its South American dominions, Cusco and other Andean cities and towns decayed and followed the life cycles of regional production for exports.

Administrative convenience led Viceroy Toledo in the 1560's to group *ayllu* into reservations, the colonial ancestor of the current "peasant communities". The viceroy made the *kuracas* responsible for the levying of Crown taxes and the provision of labour force for the mines and agriculture. In addition, the Indians had to buy goods imported from Spain at the prices fixed by local royal officials.

Economically exploited, politically dominated and culturally isolated in a society divided along ethnic lines, the natives periodically rebelled against their immediate Spanish rulers, though never against the Crown. Their protests were sometimes passive and non violent, like in the case of the *Taki Onqoy* (known as the "malady of singing"), a movement that began shortly after the Spanish invasion, in 1565, in Ayacucho (curiously enough the geographical origin of "Shining Path"), where the ecological damage caused by the Spaniards was particularly severe (Andean camelids were almost extinguished and natives were being used to transport products, pigs and sheep destroyed the maize fields, etc.) and added to the already devastating effects of diseases, plunder and poor labour conditions. The Indian preachers of the movement induced their fellows to religious disobedience and to follow a new religion, mixture of ancient rites and catholic rituals, but opposed no resistance when the movement was violently repressed. However, others took a more active and aggressive form of rebellion, like Juan Santos Atawallpa whose uprising's influence lasted for more than twenty years and covered a vast zone of the Eastern Andes.

Generally speaking, the colonial period has been considered a dark era of Peruvian history with very negative connotations. This is partly due to the so-called "black legend" concocted by the British to discredit the Spanish Crown and present themselves as a civilized force capable of unleashing the forces of development through free trade. It is true that Spanish domination interrupted an autonomous development process that had been taking place for thousands of years, and that greed and abuse were driving forces of the newcomers who sought to drain natural resources and exploit the natives. However, the syncretism that resulted from the culture they brought and that of the native population is a unique and undeniable historical fact that, whether one likes it or not, has to be accepted and positively streamlined. The Perú of nowadays is neither Hispanic nor purely Indian, including the most aristocratic urban districts or the remotest highlands. The problem lies precisely in accepting that reality and in purging the negative aspects of this cultural 'collision', such as racism, rejection of vernacular language, mores and values, while at the same time emphasizing the enormous potential of this rich cultural diversity. Accepting a mixed cultural heritage implies, therefore, building a new culture that recognizes its roots, but is totally different from the ones that originated it. This has remained until the present the great cultural challenge of national integration that will eventually determine whether Perú is a viable nation-state.

By the eighteenth century, Perú had lost importance for the Spanish Crown. The depletion of the Potosí and Huancavelica mines producing silver and mercury, respectively, had diminished its relevance, while Venezuela and the River Plate's agricultural production became progressively important. The economic and political power of Lima was further weakened by the contraband of British, Dutch and French goods that undermined the monopolistic privileges of the capital, as well as by the sweeping reforms introduced by the Spanish Bourbon king Charles III, who finally decreed free trade between America and Europe and created separate autonomous administrative units, reducing Lima's control on vast territories of Spanish South America.

It is in this critical context that the largest and most influential of the Indian rebellions against the Spaniards spread through most of Southern Perú. Lead by a Cusco *kuraca*, named José Gabriel Condorcanqui, who took the name of Túpac Amaru II, the rebellion took place in 1780 and its aim was to reduce the abuses of colonial rulers. Initially supported by provincial *criollos*, the movement was rapidly joined by Indian peasants and the insurgents' aims became the establishment of an Indian and mestizo republic. Between November 1780 and March 1781, thousands of rebels were killed and Túpac Amaru was eventually executed in the main square of Cusco, along with his wife and other relatives. Many members of the Indian *élite* were killed or deported, their privileges abolished and the use of *quechua* banned. This was probably the last opportunity for an independence movement involving both *criollos* and Indians.

Independence and republic

Peruvian independence was largely the result of pressure and active intervention by external forces. The merchant classes of the River Plate basin and Venezuela were realizing the potential benefits of severing the ties with Spain to fully integrate the international free market. However, the Argentinian José de San Martín and the Venezuelan Simón Bolívar quickly realized that as long as Perú remained in the hands of the Crown, their independent territories would be at bay.

In 1820, after expelling the Royal army from Chile, San Martín and its companion, the British freelance naval commander Lord Cochrane, arrived at Paracas, on the Peruvian coast, with an army of around four thousand men. San Martín proclaimed Perú's independence on 28 July 1821, while Royal troops were still holding positions in the Central Andes. He then

met Bolívar in Ecuador to discuss the political future of Perú. San Martín supported the idea of imposing a European-style constitutional monarchy, while Bolívar allegedly wanted a more liberal democratic order, which at the end turned out to be his own personal will as dictator. San Martín quietly retired to Boulogne-sur-Mer and Bolívar's troops defeated the royalist forces at the battles of Ayacucho and Junín, under the command of the Venezuelan Antonio José de Sucre, in 1824.

Perú paid a high price for this imposed independence. The first thirty years of the new republic were afflicted by stagnation and continuous political strife. With exhausted mines and in a disadvantageous geographical position to trade with Europe, Peruvian exports halved between the 1780's and the 1820's, while internal production declined. For decades, local warlords, called *caudillos*, fought each other for power. Between 1826 and 1865, Perú suffered thirty-four presidents, twenty-seven of which were active military officers.

Not only did the social and economic conditions of the Indians not improve but actually worsened. In fact, one of the first measures Bolívar took was to reinstate the taxes on Indian peasants previously abolished by San Martín. His also apparently democratic decree of 1824, granting property rights to individual peasants over formerly communal plots, reversed San Martín's decree forbidding the Indian forced labour system because it enabled *criollos* to acquire large estates, thus extending the *hacienda* system and incorporating Indians as serfs.

From the very beginning of independence, the British sought to control Peruvian trade to the distress of the United States that even tried to postpone South American independence movements. British influence was only countervailed by the French, but between them both had such an economic power, that the Peruvian government invited them to draft the trade laws for the country in the 1830's. Gold, silver, quinine, as well as sheep and alpaca wool were the main commodities exported by British houses. Wool trade was so important and profitable at the time that it awoke separatist ambitions in Southern Perú and gave origin to a short-lived Perú-Bolivia Confederation.

The Guano Boom and the Pacific War

The basic pattern of political instability, subordination of national economy to international economic cycles, and strong foreign presence in the country's most profitable productive sectors and activities was never

to actually recede. The so-called *guano boom* and the subsequent war with Chile is an illustrative period in this respect. In the midst of a severe economic crisis, Perú's economy was suddenly activated by the appearance of a profitable export trade: the *guano* (dung) of the millions of seabirds that had covered off-shore islands with this exceptional fertilizer. The qualities of the *guano* to improve agricultural yields was known since pre-inca times and, according to an Spanish *cronista*, its use was learnt by the Europeans from the natives. The development of capital-intensive agriculture in mid-nineteenth century Europe, reveals that they took advantage of this transfer of technology and developed a huge export market for the product.

To exploit the *guano* deposits, the Peruvian government established a State monopoly, following the traditions of the Spanish Crown, and then sub-contracted the trade to British merchant houses. The *guano* was extracted mainly by Chinese labourers imported from Macao. In a few years, the Peruvian economy was the most dynamic and promising in Latin America even though the benefits of the trade were circumscribed to a reduced *élite*. Between 1840 and 1880, the Peruvian State received an average of sixty % of the net profits of such exports. However, as it usually happens with mismanaged economic booms, when the *guano* era was over, the Peruvian finances were left in very bad shape. Most of the revenues were spent in enlarging the bureaucracy and the army, and in serving an ever increasing external debt. Significantly enough, one of the first official acts of the country's first republican government was precisely to contract foreign credits worth 1.8 million sterling pounds, that by 1848 totalled 4.5 million. This forced President Ramón Castilla, one of the few presidents with vision and genuine interest in the country's development during the nineteenth century, to dedicate half of the State's income to pay the outstanding foreign debt.

The historical *guano era* is a complex period full of hopes, deep frustration and failed attempts to push the country forward. President Castilla tried to develop a "national bourgeoisie" using the money to pay internal public debts dating back to the days of the independence war. Corruption lead to the payment of many fraudulent claims that facilitated a huge transfer of capital from the state to the *criollos* on the basis of new foreign credit. Worst of all, this transfer only served for the upsurging of a predominantly commercial bourgeoisie, based on the coast, that pressed for the control of the *guano* trade.

Another important national project linked to the latter years of the *guano* boom was the construction of railroads. The main cause for a fourfold

increase in Perú's external debt between 1868 and 1872, when it stood at 35 million sterling pounds, and for the death of hundreds of Chinese and Indian labourers, the railways linked production centres with seaports and did little to integrate the country's internal regional markets. Allegedly the most expensive railroad in the world, mainly due to the corrupt practices that pervaded its financial management, the venture made Perú the largest debtor in the London money market. In 1870 the government granted in despair a monopoly on *guano* to the French merchant house of Auguste Dreyfus, linked to the Paris bank "Société Generale". Dreyfus assumed the foreign debt and facilitated an advance to the government. According to the own words of the "*Société Generale*"'s director, this was "the largest, most positive and most profitable business agreement in the world".

The sad epilogue to the *guano* extravaganza was the war between Perú and Chile. By the late-1870's the boom was coming to an end. Nitrates and synthetic fertilizers were being developed as cheaper alternatives. President Manuel Pardo nationalised the nitrate deposits of the southernmost department of Tarapacá, which like those of Bolivia were being exploited by British and Chilean entrepreneurs. When the Bolivian Congress imposed taxes on nitrate exports, the Chileans, supported by the British, declared war on that country thus forcing Perú to enter the conflict in virtue of a mutual defence treaty. The results were disastrous for Perú. It exposed the ineptitude and corruption of its ruling class, the poor identification of the population with Perú as a nation-state and the lack of preparedness for a national emergency. Isolated acts of naval, military, and civil heroism did not prevent the Chileans from achieving their objective of destroying the country's productive base to avoid retaliation. Lima was sacked, the National Library burnt, the *haciendas* ruined and part of the territory, including Lima, occupied.

One of the war heroes, Mariscal Andrés A. Cáceres, became president after an intense power struggle and proceeded to reconstruct the country. The path chosen was an agreement with the British bondholders to capitalize the debt, called the "Grace Contract". It consisted in handing over to the creditors the railroads, vast *haciendas*, rights to exploit certain services, three million tons of *guano*, and thirty-three annual payments of eighty thousand sterling pounds.

Between 1890 and 1929, Perú enjoyed an export boom based on a wide range of raw materials: sugar, silver, cotton, rubber, copper, wool and oil. During this period the presence of foreign companies, mainly from the

United States, became increasingly important. One of this enterprises, the Cerro de Pasco Copper Corporation, bought almost all the mines of the central Andes and the Standard Oil of New Jersey acquire in 1913 the oil deposits that made Perú one of the first world oil exporters and the most important South American producer until 1924, when it was surpassed by Venezuela. By 1926 the British domination of more than a century was over and the United States became Perú's first trade partner providing a market for more than one-third of its exports and supplying around half of its total imports. This is also a period of great land concentration in the coast (sugar and cotton plantations) and in the Andes (commercial sheep and cattle ranching). The latter reduced the lands of the peasant communities and consolidated the power of landowners who became physical intermediaries between the State and the vast *quechua* speaking population.

The roaring twenties and the appearance of mass politics

As it was for most of the world, 1929 was a critical year for Perú. The effects of the "crack" were fully felt in the country's economy. But this year was also the peak of mass politics. The dynamic export growth between 1885 and 1919 brought political stability to Perú's incipient democracy based on a very small electorate and the so-called "aristocratic republic". Industrial growth in Lima and capitalist development in mines, oilfields and sugar estates concentrated the working class and favoured the development of trade unions. Strongly influenced by anarcho-syndicalism, the trade unions organized the first general strike in 1911 demanding the eight-hour day, that was only obtained during a second general strike in 1919.

After being elected that same year, President Augusto B. Leguía granted labour rights, developed the country's physical infrastructure and appointed a land comission to investigate peasant uprisings that took place in Puno in the early 1920's. During his latter years in power, however, he turned to a more repressive attitude and favoured foreign capital with too generous tax exemptions. He was finally overthrown by an obscure military man, Luis Sánchez Cerro, who had strong facist inclinations. By the end of Leguía's government the external debt was tenfold and Perú subsequently defaulted in 1932, when more than two-thirds of its export earnings equalled its payment obligations.

The 1920's also witnessed a debate that was to mark Peruvian politics until nowadays. The main actors were, on the one hand, José Carlos

Mariátegui (1895-1930), founder of the Peruvian Socialist Party, later the Communist Party (PCP), and, on the other, Victor Raúl Haya de la Torre (1895-1979), founder of the Alianza Popular Revolucionaria Americana (APRA), currently in power under the leadership of President Alan García. While the former managed to gather the bulk of trade unions under a central confederation of workers, the latter rapidly became the first mass political party in Perú, drawing its support from the lower middle class, students, and urban and rural workers. In the process, the death of Mariátegui in 1930 (at the age of thirty-five) led the PCP to sectarian marxist-leninist positions that alienated vast sectors of the population and confined the influence of the party to a small revolutionary *élite*.

Mariátegui was the first thinker to attempt a systematic analysis of Latin American societies from a marxist perspective. He subscribed the view that Perú was a "semi-colonial country" but dissented from the Comintern's opinion that it was also a "feudal society" that needed a "national bourgeois revolution" before capitalism, and subsequently socialism, could become the dominant mode of production and social order. He contended that the Peruvian landlords were only "intermediaries of imperialism" totally incapable of leading an independent development strategy. On the other hand, the local middle class weakness and racist attitudes made them incapable of assuming that task, which required the active participation of the indian masses. For him, the advanced stage of development of a world monopolistic capitalism made it useless to attempt an autonomous capitalist development. However, Mariátegui was conscious that the small Peruvian working class was not sufficient to establish a marxist-leninist vanguard party and stated that a peasant-working class alliance, though slow and difficult, was a pre-condition for revolution. The wretched illness that killed him and the intense pressure of the Comintern to combat Haya de la Torre, frustrated his intention of building a marxist inspired movement, but at the same time adapted to the complex realities of Perú. His intellectual legacy, impressive for his short life, is widely respected in Perú and Latin America.

Haya de la Torre began his political career as a student leader in Lima during the 1919 general strike. The five founding principles of his party were: struggle against "yankee imperialism"; the political unity of Latin America; the nationalization of land and industry; the internationalisation of the Panama Canal; and, solidarity with all the oppressed peoples and classes of the world. Haya claimed that the main problem faced by "Indoamérica" was the alliance of the feudal landlords and imperialism. In

his view, however, imperialism was the first stage of capitalism in the region rather than the last one as Lenin had stated. Therefore, a national anti-imperialist revolution was not only possible but necessary to organize a viable capitalist development. The main actor of such a revolution was to be the middle class in alliance with the organized working class. His approach enabled him to create a mass political party in the country much more successfully than the one fostered by the pro-Moscow sectarian followers of Mariátegui. Since its foundation in México in 1928, 1929 was a critical year for Perú the APRA party remained, together with the Catholic Church and the Army, as one of the most influential institutions of the country.

The return of the military

Between 1930 and 1939 Perú lived under military rule. In 1931, elections were called by a military junta that forced Sánchez Cerro to step down in view of growing social unrest and allowed Haya de la Torre to return from exile. However, the elections were clearly fraudulent in favour of Sánchez Cerro, who ran as candidate. In 1932, APRA militants rose and held the city of Trujillo, in the northern coast, for two days. After a series of confusing events the military surrounded the city and shot thousands of Apristas. The subsequent feud between the APRA and the military lasted until the late 1970's and forced that party to long periods of clandestinity and resulted in a continuous veto of the military on the entry of APRA into government, until the elections of 1980 in which they actually lost in the polls.

The period between 1945 and 1948 was the only occasion in which the APRA found itself close to exercising power. In 1939 the military called to elections after banning APRA and the PCP, and Manuel Prado, a Lima banker, won. Prado marked a brief interlude of political harmony, based on a modest export growth and his personal ability as negotiator. This interregnum allowed the APRA party to reorganize and support José Luis Bustamante y Rivero to succeed Prado with Aprista support and participation in government. Mass mobilizations demanding radical reform, poor economic policy and Bustamante's lack of political talent, precipitated another military coup in 1948.

General Odría imposed a highly authoritarian dictatorship between 1948 and 1956. APRA, PCP and the trade unions were severely repressed and Haya de la Torre took refuge in the Colombian embassy in Lima and

remained there for around six years. In spite of the political misfortunes, the country entered into an era of great prosperity. Taking advantage of the long post world-war boom, Peruvian exports grew by around 10 % a year during the 1950's and then doubled this high growth in the early 1960's. Odría, following the opposite direction of most Latin American countries, opened the country to foreign capital and complied with the rules of free trade. This policy allowed the development of important mining resources with foreign capital while the flourishing fishing industry remained under local control. By the early 1960's Perú became the largest fishmeal producer in the world.

Democracy and civilian reformism

In 1956 Manuel Prado was democratically elected and finished his constitutional mandate in 1962. In 1962, APRA's candidate Víctor Raúl Haya de la Torre and Fernando Belaúnde, leader of a rather new party called Acción Popular (AP), reached a deadlock during the elections due to the small difference in votes received by each one. Amidst allegations of fraud, the army intervened only to call elections a year after. However, during its brief rule, the military junta showed signs of a nationalist institutional inclination towards reform. It founded the national planning institute, built a state-owned refinery and applied a limited agrarian reform in two Cusco valleys affected by increasing social unrest, including an incipient guerrilla movement lead by the Trotskyite Hugo Blanco.

Fernando Belaúnde took office in 1963 after winning over APRA, with the support of the urban professional and middle classes that doubled during the 1950's up to the point of becoming 15 % of the country's workforce. The communist party as well as other leftist forces who saw in AP a means to hinder APRA's access to power also voted for Belaúnde. However, the APRA and General Odría's followers, mortal enemies until less than a decade before, made an alliance to control Congress and systematically block Belaúnde's initiatives. In fact, the APRA had been substantially moderating its programme and demands for quite some time, in a move that followers describe as "tactical" and detractors as "opportunistic". At any rate, the alliance with Odría's followers to represent the oligarchic interests in Congress was too much for most of its radical followers, who defected to the left. One of this defectors, José de la Puente Uceda, founded a guerrilla movement under the inspiration of the Cuban revolution and died fighting in the jungle.

Belaúnde tried to promote moderate reform, and was very much inspired by President Kennedy's "Alliance for Progress". He had to face two difficult, long lasting, and highly sensitive national problems: the most unequal landholding structure in the continent and the presence of the Standard Oil under inadmissible legal conditions, especially with respect to tax payments to the Peruvian government. In his inaugural speech he promised to solve them both, the latter in ninety days, but in practice he was unable to do so in five years. Instead, he concentrated in a pet project to colonize the jungle and expand the agricultural frontier, through the construction of a highway running the length of the country along the tropical forest fringe. The project became the President's personal obsession and was transformed into a vast public investment programme financed with foreign loans, and centred on transport and irrigation projects, as well as improvements in education.

A vague ideological commitment, harsh opposition in Congress and an excessive willingness to compromise, prevented Belaúnde's government from confronting the agrarian problem. By 1965 guerrilla warfare was pervading the rural areas and promoting land invasions and peasant uprisings. Besides, the rapid expansion of higher education had strengthened the left, especially because of widespread frustration among provincial professional cadres who resented Lima's centralism and cultural prejudices as well as APRA's new alignment. The situation worsened when Belaúnde ordered the army to suffocate guerrillas and peasant uprisings with counter-insurgency advice by the United States armed forces.

But the issue that finally determined the fall of Belaúnde was the gross mishandling of the controversial question of the Standard oil. The agreement that was finally signed in 1968 favoured the foreign company in such a way that aroused public protest from almost all sectors, including conservative ones. In virtue of that agreement, the company ceded control over the almost exhausted oilfields it had been exploiting to the small state oil company, but kept the refinery and its monopoly over fuel marketing in the country. However, what triggered widespread indignation was that the contract contained a crucial and secret "eleventh page" fixing the price at which the state company was bound to sell the crude to guarantee the latter a rather excessive profit. The president of the state oil company denounced the existence of this secret pact, setting off a scandal that was used as justification by the military to stage a coup. Considering the lack of popularity of the Belaúnde government at that

point, it was not difficult to forecast the victory of APRA in the imminent elections. Nevertheless, the military veto to that party prevailed once again.

Military reformism: the Velasco years

The military government led by General Juan Velasco was clearly different from previous *de facto* rulings, since it was an institutional project, not a personal venture. In fact, the military had been progressively preparing themselves for a more active participation in different spheres of national life with the intention of governing directly if the civil political *élite* was unable to do so. Through the establishment of the "Centro de Altos Estudios Militares" (CAEM), and a military intelligence service in the 1950's, the army developed contacts with intellectual currents supporting a nationalist perspective for Peruvian development. Lacking the class exclusiveness and elitist attitudes of other services, the army was more sensitive to the country's social problems and development dilemmas. The guerrilla episode increased the sensitivity of young officers to the reality of a social and economic order that was dividing the country and posed a threat to national security.

Aware of the political sensitivity of the issue and the symbolic content for the population, the first act of the military government was to occupy the northern oilfields and expropriate the refinery. The measure provoked universal acclaim and legitimized the military intervention in the eyes of a vast portion of the population.

Influenced by the development strategy proposals of the United Nations Economic Commission for Latin America (ECLA) and intellectually supported by Peruvian civilian "ideologists" and technocrats, the military opted for a "non-communist and non-capitalist" path to development. Both the traditional oligarchic groups and the radical left were displaced from the political arena in favour of a "third option", that was described as "social democracy of full participation". In the end, what the Velasco government did was to implement the original APRA programme, already abandoned by that party for some time, probably with the aim of purging the country of Aprismo. The Communist Party, the Christian Democrats and other minor political groups provided "critical support" to the military under General Velasco and in many instances actively participated in government.

During the period of Velasco's leadership the main tenets of the radical

programme of the military were: agrarian reform, reduction of foreign ownership in the exploitation of natural resources and basic industries, reforms in industry to allow workers' ownership and participation in profits, impulse to a new sector of self-management called "social property", development of a state capitalism, educational and social reform, and a stronger presence of Perú in the international political arena, defending a Third-World and non-aligned position.

Much has been written about the Peruvian agrarian reform. More radical than any other similar policy attempted in the continent, including the first Cuban land reform law, the 1969 agrarian reform was aimed, from a political perspective, at solving an ancient and crucial problem pointed out, among others, by Haya de la Torre and Mariátegui. Suffice it to say that before 1968 one per cent of the landowners controlled close to 80% of the arable land. At the time, a widely held point of view contended that such a measure would not only neutralise the threat of peasant-based subversion, but would also expand agricultural production, increase rural employment and, consequently, expand the countryside market for manufactured goods.

Good intentions notwithstanding, these aims proved both contradictory and impossible to achieve in the framework of strict state control imposed over agriculture. Securing cheap food for the urban population in order to facilitate industrialisation keeping salaries low and avoiding working class unrest, were placed as priorities over agricultural development. Lack of adequate credit facilities and technical support, internal problems in the collectivized enterprises in the Coast and the Andes, a massive emigration of agronomists and their subsequent replacement by inefficient and obstructive state bureaucrats, contributed to the disastrous performance of the sector for more than a decade.

— The government also embarked on a series of expropriations and nationalisations of major foreign firms in mining, agro-industry, fishing, banking, electricity, transport and communications. Whereas in 1968 three-quarters of mining, a third of the fishing industry, two-thirds of the commercial banking system, and half of manufacturing industry were under foreign control, in 1975 the Peruvian state was responsible for more than half of the mining output, all the fishing industry except minor

artisanal activities, two-thirds of the banking system, a fifth of industrial production and half of total productive investment. Besides, its share of exports rose to around 90%, even though a large portion of these

exports corresponded to minerals and oil marketed but not extracted by the public enterprises. Basic industries like cement, paper, chemicals, glass and shipbuilding were reserved to the state, and the private sector could only invest in them through joint ventures with public enterprises.

These measures notwithstanding, the military displayed efforts to attract direct foreign investment to the activities in which it was considered indispensable. The Southern Perú Copper Corporation (SPCC), which exploited the southern copper ore of Toquepala since the 1950's was not expropriated because it managed to raise US\$ 550 million to develop the Cuajone copper mine, the major possible source of foreign exchange in the late 1960's. The government also allowed foreign companies to operate in the jungle oil fields provided they signed the "Peruvian Model Oil Contract", by which the foreign firms incurred exploration and development costs in return for half of the oil production, while the other half went to the public enterprise PETROPERU. In the manufacturing industry the foreign firms were allowed to operate provided they complied with the provisions of Decision 24 of the Andean Pact, by which they had to submit applications for new investments, register all investment in the country, obtain government approval for technology contracts and reinvestment, limit their profit repatriation, and had restricted access to local and external credit. Decision 24 also required that foreign-owned firms follow a divestment programme to gradually reduce foreign shareholdings to a maximum of 49%. The latter only had a very limited application.

A General Law of Industries was the legal framework to introduce reforms in the private manufacturing sector, through the establishment of incentives according to a "four-priority" system. The law was supplemented by the "Industrial Community Law" which established the system of "labour communities" to allow workers' participation in management, profits and ownership, with the aim of reaching a 50% of labour shareholding. Also, the government promoted in 1974 a "social Property Sector" of state-sponsored worker-owned enterprises inspired by the Yugoslavian model and the ideas about self-managed firms of Jaroslav Vanek. Intended to be the predominant sector of the economy, the social property sector never received enough support to achieve even more modest goals and no more than fifty of these enterprises were set up. The private sector, with few exceptions, opposed the reforms as well as the "labour stability law" which gave labourers job security after only three months of service. As with the agrarian reform, these attempts to modify

the rules of the game in the industrial sector were in conflict with the goals pursued by the government. The high costs and risks of hiring workers and advantageous tax incentives to reinvestment resulted in capital intensive industries that generated little employment and increased pressure on the balance of payments due to rising imports of capital goods and inputs. The macroeconomic policy also reinforced perverse effects since the overvalued local currency, low rates of interest and high tariff barriers as well as competitive imports prohibition favoured capital flies, lowered internal savings and supported a highly incompetent and inefficient industry.

In spite of the efforts of previous governments and the significant expansion of the educational budget under the first Belaúnde government, more than twenty-five per cent of the Peruvian children never entered a primary school in 1970, while only a third started secondary education and few ever completed it. Around 30 % of the population were illiterate, and the majority of them were women living in the rural areas. The government envisaged educational reform as a pre-condition for the modernisation of the country and asked a group of civilians, mostly members of the small Social Progressive Movement, to design an educational strategy for the country. Strongly influenced by the ideas of the Mexican Iván Illich and the Brazilian Paulo Freire, the group tried to foster education for work in the context of an underdeveloped country. Co-education was introduced, free textbooks distributed in low income areas, and participatory schemes designed to incorporate community organizations, students, teachers and parents in the educational process. However, opposition by the middle class, bureaucratic inefficiency, lack of adequate budgets and strong politicization of the teachers, who under a Maoist perspective labeled the government as "fascist", hindered the application of the reform.

The combination of this half-baked school reform with the absurd expansion of higher education due to the proliferation of bad quality universities, proved to be highly explosive, since it promoted a "revolution of rising expectations" that had no relationship with the country's realities in terms of social mobility, employment and income. Professionally ill-prepared for highly qualified jobs and "overqualified" for more accessible ones, a mass of school and university graduates found itself in the frustrating situation of not being able to find an occupation suitable to its aspirations and turned to political groups that advocated a violent solution to the country's problems.

The regime's foreign affairs policy was seen as an important tool to break dependency on the United States without falling into the Soviet sphere of influence. The new policy included the establishment of diplomatic relations with socialist countries, most of them severed during the Belaúnde government under the pressure of the United States; the active participation in the proposal to lift the OAS sanctions to Cuba; the active support of integrations schemes, especially the Andean Pact; and the defense of the two-hundred-nautical-mile jurisdiction over natural resources.

The "Second Phase of the Peruvian Revolution"

By the mid-1970's the military government had reached a critical turning-point: on the one hand, the severe economic crisis was forcing a policy definition that was postponed for years thanks to external credit from private banks; on the other, the failure of the military to obtain support from the middle class, business and the poor was generating an unsustainable power struggle that required an urgent alliance with some sectors of the population. Certainly, during the first two years in office, the trade unions, large segments of the middle class, some entrepreneurial sectors and several intellectuals were sympathetic to the regime, but enthusiasm waned with the reforms, and especially with the expropriation of the media (newspapers and television channels) in 1974, allegedly to turn it over to the "organized interest groups", such as trade unions and teachers.

Ailing and increasingly authoritarian, General Velasco was in no position to provide adequate leadership in such a critical period. The military were divided in factions that either supported or rejected a radicalisation of the revolution, the economy was suffering from faltering growth rates, declining private investment, rising inflation, a large balance of payments deficit and acute shortages of basic consumption goods.

But one of the most pressing problems was the external debt. The government's failure to mobilise internal resources for its ambitious projects, the low internal investment rate, the inorganic printing of money to cover food and fuel subsidies, and the United States-inspired embargo on multilateral loans to Perú, forced the military to turn to the international private banks that provided short-term "petrodollar" loans at high interest rates and spreads. The public sector foreign debt doubled

between 1972 and 1975, reaching US\$ 3.5 billion, with a dramatic increase in the share of exports that had to be used for servicing it. Moreover, due to the government's policies, exports were declining and the international prices reducing its value. The upsurge of right-wing dictatorships in several South American countries, particularly the coup against President Allende in Chile, further aggravated the debt crisis because the Peruvian military felt progressively isolated in the region and considered indispensable a massive arms purchase from the Soviet Union.

In mid-1975 General Francisco Morales Bermúdez overthrew Velasco in a bloodless coup. Trained as an economist, Morales Bermúdez opted for an orthodox economic stabilization programme and sought to correct the gross economic mismanagement of the "first phase" of the revolution in which he actively participated as minister of economy and finance. In spite of his assurances that the revolution's ideology, principles and programme would remain untouched in what he labelled the "second phase" of the military rule, he quickly displaced the most radical officers and proceeded to dismantle the reforms in the industrial sector. However, the implementation of the stabilization programme was extremely difficult because of rising social instability. After several failed attempts to reach an agreement with the International Monetary Fund and a succession of ministers of economy and finance, Morales Bermúdez finally implemented most of the required measures, including wage and import controls, devaluation of the local currency, and price and tax rises.

The policy had a negative effect on employment, income and production. Gross Domestic Product fell by 1.2 % in 1977 and 1.8 % in 1978, the manufacturing sector suffered the effects of scarce credit and reduced demand as real wages fell by around 40 % between 1974 and 1978. Unemployment and under-employment rose from 46 % to 54 % of the workforce between 1975 and 1977, according to official figures. Inflation soared to 70 % in 1978 when most of the subsidies and price controls were eliminated, and food prices increased more than the price index as a whole. A study of low income families indicated that the average calorie intake fell by 22 % between 1972 and 1979 to only 62 % of the internationally recommended minimum level.

In spite of these austerity measures, the fiscal deficit did not decrease, public enterprises were not privatised, and arms purchases remained significantly high. Starting in 1976, a series of strikes and the subsequent violent repression of the military, including deportations, carefree and detentions of political and trade-union leaders, progressively

generated a general and organized opposition to Morales Bermúdez's government. Finally, a general strike in August 1977 forced the military to announce a timetable for a return to civilian rule. The first step was to call elections for a constituent assembly to draft a new constitution in mid-1978, followed by parliamentary and presidential elections in 1980.

A new Constitution and an old president

The constitutional assembly elections took place in the midst of popular agitation to oppose the harsh economic measures and government repression. The leftist parties obtained around 30 % of the vote, the highest in Peruvian history, APRA 35 % and the conservative Partido Popular Cristiano (PPC) reached 24 %, because of the last-minute decision of Fernando Belaúnde to boycott the poll. The elections were truly democratic and allowed 18 year-olds to vote for the first time, but excluded approximately two million adult illiterates.

The year 1978 was a rather peculiar one. In May, Perú was among the countries with the worst payments position in the world and on the verge of open default. That same month social unrest was reaching its peak and seriously threatened the return to democracy. However, during the second half of that same year, the constituent assembly, under the experienced and skillful command of the mortally-ill Haya de la Torre, had defused much of the socio-political pressure while a boom in the prices of Perú's major exports as well as the positive effects of the stabilization policy on manufactured exports, drastically changed the situation of the balance of payments. Largely the result of the technical skills of the minister of economy and finance, Javier Silva Ruete, and the president of the Central Bank, Manuel Moreyra, both appointed in May, the new situation allowed the government to repay part of the country's foreign debt ahead of schedule and restore external credit.

The return to democracy under a new constitution and the upturn in the economy, allowed Morales Bermúdez to stage the presidential and parliamentary elections in a more peaceful and relaxed atmosphere. The death of Haya de la Torre immediately after the constituent assembly had left APRA in a difficult positions due to internal struggles for succession, while the leftist groups failed to articulate a common front. Fernando Belaúnde took advantage of these divisions and launched a masterly designed campaign, based on skillful utilisation of the media, his own

personal charisma and the advantage of having maintained a position of principle against the military through the abstention of participating in the constituent assembly "convoked by the *de facto* rulers".

A clear victory with 45 % of the presidential poll allowed Belaúnde to return to power after ten years of exile and twelve since he was overthrown. The country that Belaúnde took over in July 1980 was substantially different from the one he was forced to leave in 1968. The expansion of the role of the state to control the economy, the existence of more than 170 state corporations, the emergence of powerful new business consortia and a myriad of informal small and medium enterprises, were some of the novel features of Peruvian society.

Within two years of Belaúnde taking office, raw material prices plummeted to their lowest levels since the 1930's, and the balance of payments became a disaster area. But the problem lied in the economic policy implemented by the Chairman of the Cabinet, Manuel Ulloa, the most influential figure during the first two years of the administration. Ulloa appointed a group of young technocrats heavily influenced by the "Chicago School" to key posts, to develop a free market strategy based on three policies. First, a massive transfer of resources to the private sector through credit and the sale of two-thirds of the public corporations. Second, a drastic reduction of state subsidies, tariffs and intervention in the financial system as well as the elimination of price controls and import prohibitions. Third, a fostering of direct foreign investment to increase raw materials exports through a series of tax incentives. Mini-devaluations were to maintain international competitiveness of Peruvian exports. Much in line with IMF and World Bank thinking, the new Peruvian government received ample support from these institutions, including the preparation of a meeting with the consultative group in Paris to discuss an irresponsible proposal involving US\$ 11 billion worth projects.

Ulloa's policies failed to achieve their objectives. The abrupt opening of the Peruvian market did not allow any possibility of adjustment to local manufacturing enterprises, and many were swept entirely from the market. The plans to sell state enterprises were indefinitely postponed because the newly appointed government managers developed a vested interest in maintaining them as public, while the private sector showed little interest in buying them. Furthermore, Belaúnde never abandoned his intentions to launch a massive construction drive, thus increasing public

investment on public works and infrastructural projects. Since Ulloa's technical team refused to raise taxes on private business, a large share of state expenditure was financed with inorganic money printing and foreign loans. When the latter disappeared in 1983, the government unfairly competed with the private sector for financial resources negatively affecting productive activities.

Between 1981 and 1983, manufacturing input fell by more than 20 %, and by 1984 it was operating at only 40 % capacity. Textiles, the core of Peruvian manufacturing, suffered the worst crisis of its history due to import liberalization and widespread contraband. The vehicle assembly, engineering and leather goods industries were also hardly hit. In contrast, financial groups were booming because the rate of return on financial investments was much higher than that from capital investment in the productive sector. The then privately-owned Banco de Crédito, increased its profit by seventy-eight % to US\$ 23 million in 1981. However, less well-managed banks were unable to surmount the impending crisis and their bad debts, mostly to related enterprises, mounted and were subsequently taken over by the state or simply liquidated.

In spite of the negative effects of such policies and its inconsistencies, the first two years of the Belaúnde government witnessed moderate growth. But 1983 was quite a different story up to the point of being called "the worst year since the Pacific War". That year natural disasters, provoked by changes in the sea-currents that run along the Peruvian coast, devastated much of the country. The phenomenon, commonly known as the *Niño* current, caused landslides and floods in normally dry areas, droughts in rainy ones, destroying crops, houses, towns, irrigation facilities, fish and seafood cultures as well as altering fishing activities. Oil refineries, roads and urban services in the coast were also seriously affected. These resulted in acute food shortages and enormous costs for reconstruction and aid to the affected populations.

By 1984 the Peruvian economy collapsed. Part of a broader crisis that exploded with the Mexican default in 1982, Perú was unable to obtain foreign resources to cope with the enormous problems of the 1983 disasters. However, the effects of the crisis were particularly severe in Perú because the Belaunde government combined three disastrous policies: liberalisation of trade that ended in a significant loss of foreign exchange reserves, a concentration of resources in the exploitation of raw materials in a moment of low prices, and a construction drive that

contributed to deteriorate further the balance of payments. Large-scale arms imports continued, culminating with an agreement to buy 26 mirage fighters worth US\$ 700 million. As a consequence, Perú's external debt increased from US\$6.7 billion in 1980 to US\$ 8.2 billion in 1983, while over the same period the total external debt grew from US\$ 9.6 billion to US\$ 12.4 billion. This meant that the debt service was absorbing more than 50% of export earnings in the period.

After the resignation of Manuel Ulloa in 1982, the monetarist tendency predominated and the former minister's pragmatism was definitely abandoned. His successor, Carlos Rodríguez Pastor, imposed severe austerity measures and declared that the debt would be payed at any cost. However, the increasing social unrest and the rising terrorist activities of *Sendero Luminoso*, forced the government to seek a change. The writer Mario Vargas Llosa was offered the presidency of the cabinet, but he finally refused it and the new minister, José Benavides, an engineer with no economic skills, finally signed an agreement with the IMF that was little different from the one proposed by Rodríguez Pastor. Despite successive reschedulings, Perú faced debt interest payments amounting US\$ 9 billion, and a similar sum in repayment of the principal in the following five years.

In 1983, imports fell around 30%. However, a further fall in export earnings determined that Perú's debt repayment obligations outstripped its capacity to pay. Reschedulings were costly and conditions harsh. Even after the rescheduling Perú had to pay more than four dollars out of every ten earned from exports to cover debt service obligations in 1983. Failure to meet IMF obligations, determined the rescinding of the agreement in October of that year. Near elections and increased terrorist activity by *Sendero Luminoso*, the government completely lost political support. Discontent was already evident in the municipal elections of 1983, when Alfonso Barrantes, leader of the left parties's conglomerate called the "United Left" (IU), was elected as the first Marxist mayor of Lima. However, the results of the 1985 elections showed the lack of popularity of Belaúnde's party, since it slightly surpassed 5% of the votes, the minimum percentage to remain as a legal political organization.

If the economic record of Belaúnde is not good, his political achievements have to be recognised as positive. The organization of impeccable municipal and presidential elections, restoration of formal democratic freedoms, devolution of media, and the search for a "social pact" with

participation of labour unions and entrepreneurs were important gains for Peruvian society.

The Alan García landslide

When Peruvians went to the polls in 1985, the vast majority, more than 50%, voted for the 37-year old APRA candidate Alan García. July of that same year was a historical month for the country: it was the first time for 40 years that one constitutionally elected president passed over power to another. It was also the first time that the APRA party reached the presidential palace.

One of the first announcements of the newly elected president was his intention to limit repayment on its US\$ ~~40~~¹⁸ billion to 10% of export earnings. Besides, he made clear statements about the emphasis his government would give to long-term planning, agricultural development in the Andes, income redistribution and industrial growth. Respect for human rights and freedom of the press were also political priorities for his period.

President García, based on a strategy elaborated by a group of advisers, opted for a heterodox macro-economic policy, intended to push high growth rates. Since there is little prospect of reaching an export boom, the policy instruments for this purpose are to pay salary increases and raise government expenditures, even at the cost of high public deficits. The goal is to create a dynamic cycle of growth, in which large sums of investment and resources would be directed to remove pockets of extreme poverty and backwardness, upgrading economic performance, efficiency and productivity, and improving the utilisation of scarce resources. In order to recover the ground lost in the last decade, the target of García's administration is to reach an average growth of 6% per annum for the period 1986-1990.

The shift in income is being done through salary increases and public spending in poor areas. Another component of the strategy is to continue providing for the profitability of agriculture, which implies net transfers to rural producers, cooperative workers, small farmers and cattle-raisers. One of the measures taken is the reduction of interest rates on a selective basis, to favour the poorest rural areas.

The government does not believe that the marketplace is the best way of allocating scarce resources according to those targets. Therefore, they contend that the State has to somehow control two of the scarce resources, profits and domestic savings, or at least be able to decisively influence or direct investment decisions. The priority sectors for these investments are explicit: production of articles for massive consumption, industrial inputs and capital goods, and export industries with a high aggregated value. The other scarce resource, foreign exchange, is also tightly controlled through import licenses and maximum annual quotas.

García's government was successful in controlling inflation through price controls and a fixed exchange rate. However, during 1987 inflationary pressures reappeared and price controls are becoming progressively difficult to maintain, since violations of the law and "black markets" are now widespread. Real salary increases have been so far met with an increment in the utilisation of installed capacity. However, the impact of increased imports of inputs and capital goods on the balance of payments is severe. Reserves are dropping very fast creating the risk of import bottlenecks and shortages of goods. If further salary and government expenditure increases are made, something very likely, hyperinflation will be inevitable.

This means that the reactivation of the economy in 1986, with an overall record growth rate of more than 8% and production increases in almost all sectors, will not be repeated in 1987. The controversial expropriation of the remaining private banks has complicated matters for the government. The measure, aimed at controlling the "scarce resources" as defined by the team of economic advisers, triggered a strong debate that has polarized the population, including the APRA party itself. Illegal procedures and the secrecy in which the decision was adopted (most ministers did not know about the measure until it was officially announced) provoked a strong reaction in different sectors of the population. The President was forced by the Judiciary to step back and suspend illegal interventions, and to pass the law in Congress. After heated and prolonged debates, the APRA majority prevailed but legal and media battles are still in full force. In fact, more than one banker has refused to leave its bank until the constitutionally guaranteed compensation is duly payed.

There is a wide consensus that the government made a political miscalculation with respect to the expropriation of the banks. The

President's credibility in the business community has diminished substantially, because he publicly declared on several occasions that no banking expropriations would take place during his mandate. The intensification of terrorist activities, including a rebellion in several Lima prisons in June 1986, are also deteriorating the President's image, because of the government's inability to control political violence within the democratic system's rules. Claims of human rights violations have increased again, while the relations between García and the military are embittered by the creation of a unique Ministry of Defence to replace the former ministries of the army , the navy, and the air force, without consulting with the higher ranks.

There are indications that the government is reconsidering its economic strategy, although it is not clear which direction will take. Commitment to original priorities is very clear and the advances of the agricultural sector and the process of economic and administrative decentralisation are proofs of this. Part II of this document contains a more detailed analysis of these priorities and critical development issues.

PART TWO

MAIN DEVELOPMENT ISSUES

1.-POPULATION

Population policies

Currently Perú has more than 20 million inhabitants and is the fifth most populous country in Latin America after Brazil, Mexico, Argentina and Colombia. From this total, 40.5% are 15 years old or younger and roughly 54% under 20. The annual growth rate was 2.9% for the period 1961-1972 and is currently estimated in 2.6%.

The demographic trend in Perú can be divided into three phases: rapid depopulation between 1530 and 1750; moderate growth up to the end of the nineteenth century; and accelerated growth during this century. Population grew annually by roughly 1% in the 1750-1876 period and by 1.4-1.5% between 1876 and 1940, mainly because of changes in the mortality rate. Governments' efforts to expand health services and erradicate epidemic diseases contributed to reduce the death rate from around 33 per thousand in 1876 to 27 per thousand in 1940. The death rate was cut to an estimated 14 per thousand for 1970-1975, and in 1981 was reduced to 12 per thousand. One of the most important factors explaining the fall in death rates has been the reduction of infant mortality. The estimated life expectancy at birth rose from 30 to almost 36 years between 1876 and 1940, and in 1981 to 58 years, still below the Latin American average of 62 years.

Between 1940 and 1972 the annual growth rate constantly increased from around 1.8 to 2.9% and total population more than doubled. Since the beginning of the 1960's, birth rates seem to be gradually declining, but not yet enough to offset the reduction in death rates, and to reduce the rate of natural increase. Population growth in Perú is still among the fastest in Latin America and the country also has one of the highest child dependency ratios of the region. The total fertility rate has declined from 6.5 in 1970 to around 5 in the early 1980's and the net reproduction rate is well over twice as large as replacement level fertility.

The important changes in demographic trends that Perú has been going through in the last 30-35 years pose an enormous challenge for the country's development prospects, especially in terms of the critical parameters of socio-economic development. Studies indicate that if the fertility rates do not decline or decline slowly, Perú will be facing serious constraints on future development imposed by the natural resource endowment (energy gaps, population pressure in cultivable areas, water shortages in the coast, etc.); the difficulties in raising incomes in rural areas; and the large demand for infrastructure as well as for public services in urban areas. One indicator of this is the fast increase in population density that rose from six to 12 inhabitants per square kilometre between 1950 and 1980.

Attaining a lower demographic growth rate require that a specific population policy be fully integrated into Perú's development strategy. It is difficult to point out with any precision the causes of the changes in birth rates. The most accepted hypothesis is that better socio-economic conditions which reduce infant and maternal mortality will tend to increase the fertility rates at the beginning, but with further improvements, more education and a higher female labour participation, fertility will tend to drop. However, the Peruvian case seems to confirm that to accelerate the fall in fertility to significant levels, it is indispensable to complement socio-economic improvements with family planning programmes.

Until 1985, Peruvian governments refused to acknowledge the population problem. In 1976 the Second Phase of the military government timidly expressed its awareness of the importance of population policy, but little concrete action was taken. Partly due to the fact that politicians were sincerely convinced that this was the case, but mainly because they were anxious to avoid a confrontation with the influential catholic church, previous governments limited themselves to state that Perú was a "depopulated" country and that more inhabitants were needed to "conquer its vast and rich territory". Isolated efforts, like the one that originated the census of 1940, did not find any significant political backing with respect to defining a population policy.

Research Institutional development

The lack of political support to agencies that worked in the field is reflected in the institutional development of population research and family planning. In 1964, the Centre for Studies of Population and

Development (CEPD) was established to research population-related issues and promote family planning programmes with support of the Ministry of Health; the government, however, stopped its support in 1969. In 1967, the Peruvian Association for Family Planning (APPF) was founded and opened clinics throughout the country; in 1975 the government ordered the institution to close its operations. In 1976, the military government approved a document on "Policy Guidelines for a Population Policy" but did not go any further. Finally, a group of experts working in the public sector managed, first, to create a "National Population Council" in 1980 to replace the CEPD, and, second, to pass a "National Population Law" in Congress, in February, 1985.

The lack of official interest notwithstanding, research on population was constant since the mid-1960's in non-governmental organizations. Institutions like the Asociación Multidisciplinaria de Investigación y Docencia en Población (AMIDEP) and the Instituto Andino de Estudios en Población y Desarrollo (INANDEP), played an important role in carrying out research and promotion activities, as well as in providing human resources to the government when the official view of the problem changed.

It was only with the APRA government, however, that the issue was publicly acknowledged as a serious problem by the highest government authorities, and the president himself proposed to discuss it in a more responsible manner. Also, the change in the attitudes of a significant portion of the Peruvian Catholic priests, especially those that are in direct contact with extreme poverty, has favoured the implementation of certain realistic policies oriented to reduce the fertility rate, including an ambitious educational campaign with the support of several international development institutions. A taboo subject in most circles less than a decade ago, the population problem is now confronted more pragmatically by important sectors of Peruvian society, and receives more attention as well as political support from the government. However, it is too soon to judge the impact of such policies and if this trend will continue in a sustained manner.

Estimates of the Institute of National Planning indicate that, if current population policies are adequately implemented, in the year 2000 Perú will have 27 million inhabitants, 62% of which will be between 15 and 64 years old. The same source considers that the growth rate will gradually decrease from the present 2.6% to 1.8% per annum during that period. However, these figures correspond to an "optimist" hypothesis in which the fall in fertility rates would be rapid. The "pessimist" hypothesis is that if current growth rates remain more or less constant, the country's

population in year 2000 would be 31.5 million.

Migration

Perú has also been going through a process of massive migration and spatial redistribution of its population. In 1940 around 35% of the total population lived in rural areas and it is estimated that in 1985 less than 30% remained in the countryside. This means that during that period the urban population grew from 2.5 million to more than 13 million inhabitants. Due to this migration process the growth of urban population (defined as those living in towns of more than 2000 inhabitants) has been accelerating rapidly and the yearly rate for the 1970's and early 1980's is estimated at around 5.6%. Recent studies show very slight declines but the current rate is still over 5% per annum.

The region that has had a relatively larger loss of population is the Andes, where 65% of the total population lived in 1940 and only 40% remained in 1981. In turn, the coast increased from 28% to 50% in the same period. The Amazonian region, with 56% of the territory, only increased its participation from 7% in 1940 to 10% in 1981.

Although in aggregate terms the direction of migration has been from rural to urban areas, there seem to be two parallel movements: from rural to rather small urban areas and from there to large urban centres. Thus, according to data of the mid-1970's, Lima received over half of its migrants from towns of more than 5,000 inhabitants (where approximately one-quarter of the total population lives); over 70% of its total migrants came from the Andes; and for most it was the only movement of their entire lives. In contrast, the Arequipa department, where the country's second largest city is located, sent over 70% of its immigrants to Lima and received over 65% of its immigrants from the cities of Puno and Cusco, which are less urbanized and poorer cities in the Andes. On the other hand, Puno and Cusco received over 70% of their migrants from other provinces within the departments where they are located.

The migration process appears to be highly selective. The average migrant tends to be young, risk-taking, with an above average education and not of the poorest income group of its native community. There are indications that the better educated tend to go to the larger urban centres. Even though it is difficult to determine whether urban "pull" factors are more important than rural "push" factors, these characteristics of the average migrant suggest that the attraction of better job and income opportunities are probably more important than the "push" factors of extreme poverty.

The available evidence indicates that the overwhelming majority of the migrants perceive that they have improved their living conditions. This perception of improvement increases with the amount of education the migrant has had and the longer he has lived in the city. The extremely large climatic and cultural differences of the country make the adaptation of the migrant a very difficult and painful process. This is why the presence of relatives or friends is an important factor in determining the target city.

Migration poses several challenges to Peruvian society: concentration of the best human resources in very few cities and the subsequent need for employment, the strong demand for public social services, the enormous cost of urban development, the abandonment of agricultural, commercial and professional activities where they are badly needed, and the increasing difficulty to break this vicious circle and decentralise the country's economic activities.

There is a broad consensus that continuous research is required in most topics linked to population, such as migration and fertility, but also that technical options for cheap and adequate housing are urgent. Official agencies are stressing the need to improve the available information through better methodologies of data collection and the use of computers for quick processing and more accurate projections.

2.-URBAN DEVELOPMENT

The urbanization process in Perú has three outstanding features: movement to the coastal areas, increased concentration in larger cities, and overwhelming primacy of Lima. More recently, the trends have been gradually changing, with the intermediate cities absorbing an increasingly larger share of migrants.

In general terms, this process of rapid migration and urbanization is the consequence of the modernization of the economy. Up to World War II, agricultural investment concentrated in the coast because its river valleys had more fertile soil than the Andes and transportation to local and overseas markets were easier. This, coupled with the stagnation of the Sierra's mining centres and commercial activity, triggered migration from the Andes to the coast and the progressive concentration of population in this area also concentrated political power, attracting the attention of governments. In the post-war period, the process of industrialisation and the improvement of communications with the Andes

further reinforced the trend.

In the coast, two basic types of cities emerged from this process. On the one hand a series of "dynamic cities" developed where land, water and port facilities were available to complement a main highly profitable activity, allowing economic growth and urbanization (e.g. Trujillo and Piura, where rich soil favoured the development of profitable cotton and sugar exports, Chimbote with the fishmeal boom in the 1960's). On the other, a series of other cities developed around one exclusive economic activity in places where very poor natural complementary factors imposed constraints to further development (e.g. the city of Talara built around the oil production in the midst of a desert where water and arable land are too scarce to allow further development).

The staggering primacy of Lima over the rest of the urban centres is easy to explain. One of the main reasons is the extreme concentration of all the administrative apparatus since the Colonial period, because economic activities that developed in other areas of the coast and the Andes depend on Lima for finance, decision-making and inputs. This established a vicious circle because Lima gradually concentrated investment, human resources and power, and this, in turn, biased government policies in its favour generating a stronger attraction for the country's resources. Currently Lima concentrates slightly less than one-third of the country's total population, 80% of the banking activity, 70% of industry, more than 70% of medical doctors and more than 90% of total private investment. If the present trend continues Lima will increase its present population of approximately six million inhabitants to 11 million in year 2000.

Community organization and the informal sector

According to data of the early 1970's, the percentage of the urban population living in shantytowns is very high. In cities like Chimbote, more than 95% lived in these conditions, in Piura 50%, in Trujillo 64%, and in Lima around 30%. Only 42% of the urban population has access to potable water and 31% to sewage. Housing is very deficient in quantity and quality. Estimates of the deficit vary, but it is hardly of less than two million units. Data also indicates that at least 35% of the urban population lives in rooms lodging four or more persons. Lack of coherent urban policies have further aggravated the problem. Two of the problems stressed by experts are the dilapidation of the urban space and the obstacles created by a legal system that promotes speculation and provides little help to the poor.

The shantytowns gave rise to original forms of self-management. The military government tried, during the 1970's when the migratory wave was at its peak, to control the organizations of their dwellers but failed. Since the constitutional order was re-established in 1980, political parties have been struggling to obtain political support from them because they represent a significant proportion of the electorate. The left was the most successful in this endeavour but now the APRA is progressively gaining ground in this respect. The self-management organizations have been extremely successful in organizing and mobilizing the population for the development of infrastructure (water, sewage, road construction, reforestation) and to demand government support for these purposes. The process was further reinforced with the restoration of municipal elections and increased local government autonomy in 1980. "Villa El Salvador", a settlement that was promoted by the military government in the early 1970's and that now has more than half a million inhabitants, is an outstanding example of self-management organization. It contemplates legal and economic aspects that seek to guarantee property rights, access to common facilities and credit and the generation of employment opportunities on the site, especially for women. The latter is very important, not only because it facilitates the incorporation of women to the workforce, but also because in numerous cases women are the only source of family income.

Several studies contend that the urbanization process as a whole may be inevitable in Peru's long-term development. Whether this is a positive process or a negative one is still a matter of intense discussion. Conventional wisdom states that the concentration of population in urban areas is part of the development process and, after an initial phase of extreme growth, it tends to stabilise, with positive effects such as reductions in birth rates and concentration of human resources where they are most productive for the nation as a whole. However, the share of population in urban areas will still increase to around four-fifths of the total by year 2000. This means that an ever more direct relationship will exist between population policy, affecting primarily urban fertility rates, and urban population growth, and confirms the urgency for population research and policy design and implementation.

The failure of the import substitution industrialisation in absorbing the labour force displaced from the rural areas determined the appearance of a large "informal sector" in the urban areas. Only in Lima, it is estimated that more than 400,000 people work in informal activities. The main features of this "informal sector" are that it operates outside the national legal system (no taxes or social security are paid), it is largely

integrated, though not exclusively, by migrants, and it is a formidable mechanism to create job opportunities, especially in services, small industries and house construction. According to recent data, it is estimated that more than 90% of Lima's public transport system belongs to the informal sector, which also built 274 markets of the 331 that exist in the capital city. Also, informal constructors built housing worth more than eight billion U.S. Dollars in the period 1960-1984, while the State only invested US\$ 173 million.

Several proposals are being made to incorporate the informal sector to the country's official legal and economic system. Two problems currently stressed by researchers are reforms in the legal system and access to credit. It is argued that the legal system is so entangled and contradictory that it forces the small entrepreneurs, the unemployed and even some of the former "formal" economic activities to opt for informality. The costs of being "formal" are so high, because of the legal nightmare and civil servants' corruption, that it is cheaper to be informal. On the other hand, the informal financial system implies extremely high costs for those that, because they do not have "legal existence", cannot obtain credit from public and private banks that offer loans at rates that can be ten times lower than the ones requested by informal lenders.

The present debate on the informal sector has strong political connotations. Some contend that the State has to deregulate economic activities in order to grant legal access to entrepreneurs that cannot comply with the myriad of regulations that affect each sector, implementing a simple registration and tax system. Others advocate that the State must incorporate the informal sector into the legal system and bring it under State control, to regulate its activities and obtain tax payments. Both stress the need to support informal entrepreneurs through credit and training to increase their productivity and capacity for employment generation.

The official acknowledgement of the problem has helped to stimulate the debate and to implement some interesting pilot programmes. One carried out by the Ministry of Labour is providing training and credit to street peddlers that do not have access to loans from banks because they cannot provide appropriate guarantees of assets. Each phase of training grants a higher loan that the seller has to repay in a fixed period. The programme has been highly successful not only in attracting interest but also in achieving more than 90% of repayment.

3.-HEALTH AND BASIC SANITATION

In spite of the achievements in health indicators since 1940, Perú is still suffering severe problems in this sector. In fact, Peruvian indicators for health and sanitation are among the worst of the region.

Health services are concentrated in urban areas, especially Lima, where nearly half of available hospital beds and public medical welfare institutions are concentrated. The number of beds per thousand inhabitants averages 5.5 for urban areas, 2.4 for the whole country, and 0.6 for settlements of less than 10,000 people. The average of visits to physicians is of four in Lima and falls to 0.3 in rural areas.

Health policies

The Ministry of Health runs a public health programme that receives an average of about 6% of the national budget since the early 1970's (5.8% for 1987 and a projected 6.3% for 1988). Approximately 11% of the total population is covered by the public medical social-security system.

In the 1970's the public health programme was divided into 12 health centre service areas. The basic functional unit was the health centre that, in some cases, is part of a large hospital. The outcome of this policy was that over 70 hospital health centres and another 70 centres without hospitals existed by the late 1970's. In all, the system comprised about 12,000, half of them in Lima, while Andean departments averaged less than one health professional and one bed per 1,000 persons.

Even though global indicators showed improvements, the health policies implemented by the military during the 1970's were disastrous. As of 1976, official estimates indicated that whereas 78% of the urban population had access to potable water supply (which was not very safe), only 5% of the rural population benefited from the service. Most diseases that are transmitted through inadequate sanitation noticeably increased.

Pneumonia and influenza remained as the principal deadly diseases, followed by enteritis and diarrheal disorders. Children under five years of age accounted for half of total deaths in 1976, and infectious diseases continue to have a high incidence. In 1972, the situation had deteriorated to the extent that 47% of deaths were caused by preventable infectious diseases.

With the strict economic stabilisation programme implemented during the

Second Phase of the military government, the situation worsened, since food prices increased even more than the price index as a whole, provoking an increase in malnutrition. A study of low income families showed that average daily calorie intake fell by 22% between 1972 and 1979 to only 62% of the internationally recommended minimum level. Malnutrition hit the urban shanty-town areas and the rural areas alike.

The uneven distribution of health services is also reflected in the life expectancy in the different regions of the country. Lima and Callao have a life expectancy of 67 years, while Andean departments like Ayacucho, Puno, Huancavelica, Apurímac and Cusco, have less than 50 years. Data of 1981 indicates that the number of households with potable water varies from 9% in Apurímac, Huancavelica and Puno, to 65%-71% in Lima, Tacna and Callao. The abandonment of vaccination programmes and health campaigns further aggravated the problem of infant mortality.

While per capita investment in water supply and sanitation has been extremely low, among the lowest in the region, the extremely unfavourable results are compounded by the fact that efficiency is also low resulting in bad quality and poor coverage of services. Most water systems of the country suffer considerable losses owing to leakage and illegal connections. Besides, inadequate design standards contribute to the high per capita investment cost which in urban areas is four times higher than in rural areas.

Health research

Health research is carried out by both public and non governmental institutions. Public hospitals and universities investigate specific problems but little coordination appears to exist between them, among other factors because of the extreme inefficiency of the Ministry of Health. Private centres and universities, like the "Alexander von Humboldt" and the Universidad Cayetano Heredia, develop independent research and provide health services to the poor. Water and sanitation problems are also investigated by these institutions, but the presence of the PAHO dependent "Centro Panamericano de Ingeniería Sanitaria" (CEPIS) in Lima determines a heavy influence of this organization in this field.

Research topics in these area are numerous. Among them, nutritional programmes targeted to the extremely poor, strategies to increase the coverage of health services, especially in rural areas, control of infectious diseases, and strategies to improve the efficiency, better use and coverage of water and sewerage systems are indispensable and urgent.

4.-EDUCATION

In Perú education was one of the few ways of social mobility for the relatively disadvantaged. But schools were scarce outside cities, instruction was confined to Spanish, excluding vast portions of the native *quechua* and *aymara* speakers. Absenteeism of both teachers and students in the rural areas was high and the dropout extremely high.

In spite of the expansion in the State educational budget during the 1960's, more than a quarter of the Peruvian children never entered a primary school in 1971, while only a third started secondary education and few of them ever completed it. That same year, one third of the adult population was still illiterate. Of these two million illiterates, 70% were women, most of them from the rural areas.

Exclusion from the educational system meant lower status, income and employment opportunities. On the contrary, access to university almost guaranteed entrance into the civil service, teaching or a well-paid independent professional practice. The proportion of the poor population that has been able to undertake and finish formal schooling has always been really small, since approximately 12% of those who begin primary school actually finish secondary education. However, the importance of education for all sectors of the population is immense. For instance, a military government decree in 1968 that limited free access to secondary education precipitated strikes and uprisings in the Andes, until the military repelled the decree.

Educational reform

If migration and land reform had a significant impact on Peruvian society, the educational reform of the military had a much more ambiguous one. The reform planned to reorganise education along participatory lines, with the involvement of factories, community organizations, students, parents and local authorities. Literacy, preserving cultural values and stressing cultural heritage, was a priority, together with programmes of non formal education for adults aimed at professional qualification. Also, the reformers tried to adapt school texts to the realities of underdevelopment at all levels, seeking to stress the relationship between education and work. Books were distributed free in poor areas.

However, the reform was unable to transform the Peruvian educational system in any positive sense. The main problem that reformers faced was

opposition on three fronts: the State bureaucracy that was unsympathetic or simply indifferent to the reform; the middle class that felt the educational aspirations for their children threatened, and the teachers who, grouped in a powerful union, labelled the military government as "fascist" under the influence of their Maoist leadership. The cooperation of teachers in the reform became impossible after a strike in 1973 that ended with the arrest of 400 teachers and a government refusal to recognise the legal existence of the union (known as SUTEP).

For these reasons, the reform only achieved incompletely some of its goals but the main ones were never attained. The Peruvian formal education system continues to be stratified along socio-cultural lines forming a complex of several interrelated systems that are not, and do not intend to be, equal or designed to reward individual merit. According to a recent document of the National Planning Institute, 90% of the total educational system is supported by the State, but its quality is extremely poor. In 1987, 18% of the national budget was devoted to education.

Formal education continues to be poorly articulated with the needs of the productive sectors and its quality is continuously deteriorating. The response to the need for practical training has been the development of a number of informal programmes and "technical schools" that offer training of very dubious quality. Private enterprises have pooled to organise more serious apprentice and training programmes to up-grade the work skills for specific industries. The government estimates that about only 10% of the workforce has some sort of technical training.

The situation of universities

Universities had a rapid expansion during the last 25 years. Between 1950 and 1959 only one university was established, but in 1960 alone nine were created. In the following decade, 22 more universities were founded and the number of students tripled from about 30,000 in 1960 to 109,320 in 1970. Four new universities were established between 1970 and 1980. However, the number of students more than doubled in the same period overcrowding existing academic institutions. In 1980, students surpass the quarter of a million and reach the figure of 350,000 in 42 universities in 1984. However, according to official data, only 11 out of every 100 students that enter school have access to university.

This explosive growth in the number of students was not matched by staff or budgetary increases. The subsequent deterioration in the quality of education has been dramatic, particularly in public universities. In fact,

prior to 1970 the best and more prestigious universities were the public ones, while during the 1970's the situation became exactly the opposite. In 1984, the northern region of the country had seven universities, metropolitan Lima 16, the central Andean region seven, the south nine, and the Amazon region three. According to data of 1980, 40% of the registered students in Lima were migrants from other regions of the country, and accounted for more than 55% of total students in the country.

Between 1975 and 1984 social sciences students averaged 31.5% of the total, while engineering accounted for 22.4% and law, humanities and the arts for 14.3%. Health sciences and education only account for 9% of the total number of students in the same period, followed by a 6% in the agricultural sciences, which lost popularity after the 1969 agrarian reform. Natural and exact sciences only averaged 5%.

Education research

Research on education is done in the public sector mainly by the "Instituto Nacional de Investigación y Desarrollo de la Educación" (INIDE), which received strong support during the educational reform, but now is reduced and depends on a very tight budget. Several non governmental organizations carry out research on education topics, including rural education.

The latter is one of the priorities of the present administration. The problem is complex since the 6% of the national budget that is allocated to education is insufficient to maintain existing services, let alone additional coverage. A recent study showed that half of the schools have only one teacher for all grades, and that 65% of the Andean and 80% of the Amazon region teachers do not even have an educational degree. Indicators of absenteeism are also dramatic: from a 3,444,554 population between 15 and 24 years old, only 554,000 had completed primary school; two thirds of the rural labour force had not completed primary education; and, only 4% of the total rural population had some degree of secondary education while less than 2% had some technical or superior training. Besides, the 1981 census indicates that more than 65% of the rural population is illiterate, with the Andean departments showing the worst indicators, especially with respect to the female population.

Curiously enough, the teachers' union (SUTEP), that during the military government attacked the reform, is now re-evaluating its objectives and is discussing ways of implementing popular education programmes. Some universities and several international cooperation agencies are active in

supporting these efforts, including programmes in peasant communities, probably the most neglected portion of the population in education services.

5.- AGRICULTURE, FORESTRY AND FISHING

The availability of agricultural land in Perú is very limited. Out of the country's land area of 128.5 million hectares, about 40% is not suitable for any agricultural use, 40% is only suited for forestry, and another 15% is best suited for pastures. This leaves only a 5% that can be used for crops. Most of the best soils of the country, adequate for extensive agriculture, (around 3% of the territory) are already under cultivation. Agriculture on the coast is concentrated in small irrigated areas, using relatively advanced technologies. The Andes accounts for well over half of the arable land but, except for few valleys with permanent streams, agricultural development is difficult. Deforestation and rapid erosion have further aggravated the problem. Land in the tropical forests has limited potential for agricultural activities, except for some areas of the low eastern Andes. The soils have low natural fertility levels and under the heavy rainfall, only last for a single season before accelerated deterioration turns them into arid plots.

According to the 1972 agricultural census, arable cropland amounted to 3.3 million hectares; an additional nearly 550,000 hectares were used for perennial crops, cultivated pastures and a small amount of cultivated forest. The area harvested that same year was 1.9 million hectares with more than one-third of the cropland left fallow.

Perú has abundant water resources but the division imposed by the Andes creates a highly unbalanced location that largely favours the Amazon basin. Between the Andes and the Pacific Ocean flow about fifty rivers but most of them are seasonal streams that swell in the summer months to 10-20 times their minimum flows. They provide most of the water used for agriculture and urban domestic use in coastal cities.

Peruvian agriculture is heavily dependent on irrigation and around 1.5 million hectares are currently being irrigated. Three-quarters of these irrigated lands are located in the coast and the rest in the Andes. For decades, investment has concentrated on new irrigation works but little has been devoted to rehabilitation, adequate operation and maintenance of existing facilities. The results are that the irrigation systems are falling into decay. Besides, over 250,000 hectares of arable land are being

affected by salinity and water logging because of lack of drainage, design problems and inadequate water management.

In quantity terms, Perú's water resources appear to be adequate to cover agricultural and urban domestic requirements in the long-term, but their utilisation will require substantial investments, especially to transfer water from the eastern slopes of the Andes to the coast.

The importance of agriculture in the Peruvian economy has varied throughout history. In pre-colonial times agriculture in the Andes was the principal economic activity. In the colonial and the republican periods, the importance of agriculture has fluctuated inversely with the boom-boost cycles of other sectors of the economy, mainly mining. Since the early 1950's, aggregate output has been low, per capital rural incomes have at best stagnated and the dependence on imported foodstuffs increased.

Having the worst land distribution ratio of the continent (40% of the producers held less than 2% of the land) it is not surprising that the sector was affected by increasing peasant unrest for a long time. The pressure substantially intensified in the late 1950's and during the 1960's. In June, 1969 the military government approved a radical Land Reform Law that changed Perú's landownership patterns. Latifundist agriculture was liquidated and the property rights transferred to agricultural workers, small farmers and peasant communities.

The 1969 land reform

Not surprisingly, land reform did not put an end to discontent in the countryside. Even though some 430,000 families somehow benefitted from it, they represent between about 25% of total rural population. Among them the main beneficiaries were previous permanent wageworkers turned into cooperative members and ex-tenants that held part-time jobs but were in possession of a small plot of land for which they had to pay rent before the reform. The rest, landless peasants or very poor *minifundistas*, who represent about 30% of the country's population, were excluded from its benefits. With poor and small plots of land and little or no government assistance, small farmers depend on off farm employment to finance a significant amount of their family expenditures. The impact of the reform on employment has been poor, since the cooperative members retained their jobs but little new opportunities for landless peasants were created.

Also, since the redistribution of income and resources was within agriculture, rather than a net transfer of resources from other economic

activities, its benefits were limited by the average low productivity of the sector. Different studies have estimated that the redistribution of the land reform affected only 6-10% of rural income, i.e. 1.5-2% of national income.

Macroeconomic policies in general and pricing policies in particular seriously attempted against agricultural development. Price subsidies on imported foodstuffs benefitted the urban rich portion of the population and discouraged domestic food production. Price subsidies on fertilizers favoured the most prosperous producers and resulted in many cases in inefficient use of this input. Overvalued local currency desincentivated exports and induced coast producers to compete with less efficient Andean farmers. Ever increasing government controls on marketing, coupled with little investment in storage facilities, discouraged private investment in food marketing activities.

In spite of recent improvements, production data on the agricultural sector are not very reliable. The trends that can be identified from existing information indicate that since the early 1960's aggregate output has been much lower than in the 1950's and has not kept pace with population growth. The rate of growth of the sector for 25 years has been of 2% per annum and the share of agriculture in total GNP has fallen from 25% in the early 1950's to around 10-12% in the last years. During the period 1970-1976, immediately after the reform, agricultural production grew at a yearly average rate of 0.9%, while the Peruvian economy's growth rate was 5% per annum.

However, recent research has demonstrated that the output of some products grew dramatically while production of others stagnated. For instance, the development of the poultry industry (17% per annum between 1969 and 1977), that took place near urban areas and had nothing to do with the agrarian reform, allowed the above-mentioned growth rate of 0.9%, that otherwise would have been negative. In general terms, the products that registered a continuous increase were of direct urban consumption or for agroindustrial purposes, while export and self-consumption products decreased or simply stagnated. In regional terms, this means that agriculture in the coast adapted to new market conditions, while the Andean *hacienda* and subsistence agriculture stagnated.

Animal production

The number of cattle was officially estimated at four million in 1986,

which means that production has stagnated for at least a decade. The number of pigs was estimated at two million, up only 6.2% in 15 years. The number of sheep was estimated at 14 million, up 10% on the 1984 low point but 17% lower than in 1971. As for chickens, estimates are of 48 million in 1986, which is 97% higher than the 1971 figure, but represents a drop of 18.6% from the 1983 peak. The number of alpacas is estimated in 2.5 million, while llamas amount to two million.

Cajamarca is the most important beef production region, followed by Puno, Ayacucho, Apurímac, and Cusco. Sheep is mainly raised in Puno and the central Andes. About half of the pig stock is in the central Andes, while the northern and southern regions equally share the balance. Puno is the main producer of llamas and alpacas, while goats are produced in Piura, Ayacucho, Lima and Huancavelica. Chicken is an industry concentrated near coastal cities.

Agricultural research

The evolution of agricultural research in the public sector is complicated and reflects the changes that affected agriculture, especially during the period 1969-1975. The Integration of the "Instituto de Reforma y Promoción Agraria" (IRPA) into the Ministry of Agriculture in 1969 and the subsequent transference of extension staff to agrarian reform assignments, interrupted a 26-year experience of agricultural extension in the country. Various experiments during the 1970's were not efficient in achieving the objectives of providing adequate technical assistance to the producer.

The establishment of the "Instituto Nacional de Investigación Agraria" (INIA) in 1979 with responsibility for practically all aspects of research and extension work, marked a fresh start in this respect. Re-named as "Instituto Nacional de Investigación y Promoción Agropecuaria" (INIPA) in the early 1980's, and with a more decentralised structure, the institute made efforts to promote research dealing with production problems at the local level, and tried to carry out more research and promotion activities aimed at the traditionally neglected small producers of the Andes. The most important of these activities is the joint IDRC-CIDA project on Andean farming systems in the Puno region. Recently re-named once again as "Instituto de Investigaciones Agropecuarias y Agroindustriales" (INIAA), the institution is currently going through a reorganization process.

Agricultural technical research is also done in Universities, both in Lima,

like the Universidad Nacional Agraria (UNA), and in the provinces, like the Universidad Nacional San Agustín (UNSA) in Arequipa and the Universidad del Altiplano in Puno. Several non-governmental organizations carry out research on rural subjects from the social sciences perspective, on subjects like migration, employment, evolution of peasant communities, impact of macroeconomic policies on the agricultural sector, etc. Also, non-governmental action-research groups are very active, especially in the Andean region, working at the community level.

Agriculture in the coast

The coast has concentrated almost all of the modern and dynamic activities of Peruvian agriculture, but provides employment to a very small share of the rural population. This region not only benefitted from the best lands but also from the pro-export bias of several governments and from foreign capital investments. For instance, between 1950 and 1978, 90% of total public investment on irrigation was concentrated in the coast.

Large coastal estates transformed into modern agricultural complexes that produced all the sugar, two thirds of the cotton one-third of the rice, one-fourth of the maize and half of citrus fruits. During the 1960's heavy investment in mechanization drastically cut employment, and by 1967 they employed only 65,000 permanent and part-time wage-workers.

The 1969 Agrarian reform transformed these large complexes into cooperatives. Assuming their roles of part ownership, members of the cooperatives were often more interested in maximizing immediate returns than in the enterprise's longer-term viability through investment policies. In some instances, enterprises were overloaded with members who were primarily interested in membership rather than in working to achieve better output and other common goals of the association. Initially, technicians and experienced managers were urged to remain in their posts, and this helped to increase production. However, rising conflicts between managers and cooperative members, forced the former to resign and production rapidly declined. Poor planning, lack of sound technical advice, decapitalisation, financial mismanagement, and deterioration of equipment, determined a severe crisis in the activity. Incoherent government tax and pricing policies aggravated the situation.

Andean agricultural development

Developments in the Andes were radically different. Andean agriculture

stagnated for centuries, forgotten by governments that imposed adverse pricing policies and little public investment for infrastructure. Thus, vast areas of this region remained isolated and with a minimal supply of public services.

By 1967, around 40% of the Andes farmlands were huge *haciendas* managed through tenancy arrangements. They usually had the best pastures but not the best croplands, that were in the hands of medium and small farmers. Primitive technologies, low productivity and small capital investments were the main features of the *haciendas*. Labour was basically provided by tenants who farmed small plots of the *hacienda* in exchange for rent, a share of the crops or a provision of free labour. The bulk of these large landholdings underutilised their resources, but at the same time the variations in quality of land and microclimates within the same estate made it difficult a more efficient management than through the system of small farmers. The few *haciendas* that did modernize moved from the traditional tenancy system to extensive sheep production, the only way to achieve economies of scale.

Medium-sized farms accounted for around 6% of Andes farmland in 1967. Their contribution to total output was larger but still lacked any major national significance. The quality of land, the technology used and the output per unit were below the coastal medium-sized farms.

Small farms accounted for the balance. These included land owned by "peasant communities", mostly devoted to subsistence agriculture which produced a negligible marketable surplus. These families, called *minifundistas*, together with the landless peasants, were the poorest strata of the rural sector.

There are about 3,500 peasant communities in Perú, with a population of 500,000 families. From a macro-economic point of view, these poor communal organizations are the ones that contribute less to the GDP considering the amount of workers involved. One of the main problems of most of the communities is that the land, livestock and water resources are not sufficient to maintain the reproduction of the families belonging to the community. Many of their members complement their farming activities with salary income as workers, domestic servants or harvesters.

Part of the communal lands are individual property, mostly croplands, while pastures generally belong to the community as a whole. This determines a dual structure in which individual and communal property

coexist but, most important of all, determine a social organization in which joint effort allows the community to survive in an extremely difficult environment. For unexplained historical reasons land is unevenly distributed among community members. The inequalities have become more marked in recent years, particularly in the communities more integrated to the market economy.

The 1969 agrarian reform tried to maintain the unity of the former *haciendas*, in large cooperatives called "Agrarian Societies of Social Interest" (SAIS), and at the same time to improve the incomes and living conditions of the communities. In a SAIS, the expropriated estate is farmed by the ex-workers and ex-tenants, but ownership, management and profits are shared with some of the peasant communities surrounding the estate. Most of the SAIS have been established around former livestock *haciendas* in the Andes.

With relatively few exceptions, the results of the SAIS experience have been rather poor. Lack of credit and technical support, as well as difficulties in incorporating the peasant communities to the large production units, have hampered the achievement of original goals. Peasant communities have repeatedly claimed that the agrarian reform failed to relieve the plight of the small producers.

Developing programmes aimed at the rural poverty question in Perú is difficult for several reasons. In addition to the limitations imposed by the resource base, the primitive technology, illiteracy, lack of infrastructure, cultural barriers and physical isolation, the rural poor have had many contacts with the 'modern sector' that have proved disadvantageous to them. This situation have made them highly skeptical, and in some cases overtly hostile, to outside induced programmes. Besides, while the experience with large programmes is very limited, micro-experiences, mainly by private groups, provide useful insights but their dependence on large foreign inputs made them difficult to replicate on a bigger scale.

Institutional arrangements and coordination are a serious bottleneck too. Traditionally, government agencies have worked independently, with little or no coordination, and through the classic research approach of the experimental station. Efforts to link different government agencies have had some success in Puno, Cajamarca and Cuzco, and in some cases non-governmental organizations have also participated in joint development programmes. However, there is still ample room for improvement.

To be successful, Andean development programmes have to involve the ultimate beneficiaries in the setting of priorities, the design and the implementation. They also have to be accompanied by significant increases in credit, marketing facilities and a reasonable macroeconomic policy, that favours domestic production. But most important of all, since the objective of these programmes is to improve the living conditions of the small farmers, they have to carefully assess the impact of technology application on their income in the short, medium and long-run. In many projects that established such an objective, the final outcome has been the loss of competitiveness of marginal small farmers, the poorer strata of the population, and a significant increase in production that lowered prices favouring the urban consumer. In other cases, the problem of marketing of the increased surplus was only contemplated when production had already improved, and not from the very beginning of the programme, with the subsequent losses for the producer.

Forestry and agricultural development

Forestry research is a vital complement for crops and animal production projects and programmes. Three main critical areas have been identified in this respect: The role of trees in agro-forestry systems for nutrient recycling, shade and shelter, forage production and income generation (i.e. fruit trees), reforestation to replenish stock because of intensive use of fuelwood, and rational exploitation of tropical forests.

Reforestation in the coast

The negative effects of deforestation on agricultural production, like farmland erosion, are well known. This problem is currently affecting agriculture both in the coast and the Andes, where tree felling is accelerating the deterioration of agricultural land and pastures. In the coast, the original savannah-type, open woodlands of the northern part, largely composed by prosopis species, have been almost completely destroyed to meet local demands for animal fodder, fuelwood, fence posts and building poles. The destruction has been further aggravated by the depredation of goats, on which the poorest strata of the community depend for subsistence.

To re-establish these vital woods on sites of marginal agricultural value in the arid northern coast, artificial irrigation is needed in the first years after planting. Such irrigation is feasible only if agricultural drainage and waste water are used. Research is currently focused on the determination

of the minimum requirements for tree establishment, and tolerance of appropriate species and varieties to semi-saline irrigation water, and their productivity.

In the southern part of the coastal lowlands, also extremely arid, natural vegetation is even sparser. Since it plays an important role in the rural economy as an emergency source of animal feed for the migratory pastoral community, woodlands have been destroyed causing severe erosion. Research is currently focused on the potential use of humidity concentration in the area during the three or four winter months, through the utilisation of simple, locally made interceptors that can provoke enough precipitation to support afforestation programmes.

X The critical situation of the Andes

Total wood requirements are expected to increase by 1.5 million cubic metres by the year 2000. Fuelwood supply and demand would be on balance that year if about half of the unidentified sources are still available and if all planned projects are adequately financed and implemented. Under these assumptions, existing plantations would provide 19% of total wood requirements; on-going projects would account for 11%, and less firm supplies, such as "unidentified sources", which are only inferred, would cover the balance of 70% of demand. This clearly indicates the urgency of obtaining more accurate data on the "unidentified resources", as soon as possible and to finance and implement existing and potential projects.

A bleak prospect awaits the country if this unidentified resource is depleted more rapidly or turns out to be non viable. A 1983 study estimated that if only 10-12% of this resource remains, there will be a deficit of almost two million cubic metres in year 2000, which can be met only by accelerating reforestation efforts to cover an additional 19,000 hectare/year beyond the 30,000 hectare/year covered under planned projects, and if no more than sustainable yields are extracted. Government agencies are emphasizing the need to investigate better reforestation techniques and assessment of future demand and supply, since if planned projects are delayed, fail or are not undertaken, the fuelwood situation would soon transform into a deep crisis. Besides, the outlook would be further desertification, erosion and accelerated depletion of remaining stock.

This situation reaches critical proportions in the Andes, especially in certain areas. The bulk of reforestation has been concentrated in five out of 24 departments (Cusco, Junín, Apurímac, Ancash and Cajamarca), these

accounting for 73% of the total reforested area. However, these concentration of efforts was seriously questioned, since places like Puno in the Andes and Piura in the northern coast and Andes, are areas of rapid wood outtake and facing severe penuries in the medium term. In fact, Puno was included in the biggest reforestation project that started in 1982 and is to be completed in 1987.

According to a 1983 report, external aid has focussed mostly on reforestation in the most favourable areas of the Andes and on supporting forest industries in the humid forests of the Amazon, while little is being done on erosion control and watershed management. The largest project was supported by FAO, with funding of about US\$ 5 million from The Netherlands government. The reforestation project is for energy purposes and initially covered 13,000 hectares/year with a target of gradually building up to 30,000 hectares/year. Implementation started in Huancayo, Huaraz and Puno.

Around ten million hectares are suitable for reforestation in Perú, 7.5 of which are located in the Andes. The above-mentioned FAO project would only cover, if results are optimal, 7% of the total amount suitable for reforestation in the Andes. Government promotion of private tree-planting is needed, especially in those rural areas where the activity can become income-generating through commercialization for house building and household use. Also, an increase in the project implementation capacity is required to develop more and better projects.

The Amazon region

This region covers about 60% of the Peruvian territory and contains over 20% of the country's total cultivated area. It can be divided in two main regions: the High Forests that cover the eastern foothills of the Andes and is characterized by hilly terrain, wide valleys and winding rivers, and the Low Amazon Forests that is almost entirely covered by humid tropical forests and accounts for 87% of Perú's total woodlands. Both the High and the Low forests' timber resources have been extensively exploited.

Deforestation is currently occurring at an average of 100,000 hectares of woods per year for both timber production and agricultural purposes. Of the approximately six million hectares of forest cleared for agriculture in the Peruvian Amazon during the last 50 years, scarcely 1.3 million are cultivated, because the low fertility of the soil necessitates a typical process of shifting cultivation. The remainder is covered by secondary forest left to renew soil fertility during fallow periods of ten to 20 years

and is of no direct benefit to the colonizing farmer. This system of shifting cultivation makes the soil susceptible to compacting and erosion. Therefore, one of the research priorities in this area is the utilization of environmentally sound approaches for further agricultural development.

Trees can play a very important role in implementing systems that seek to replace the shifting cultivation practices, that cannot support the pressure of increasing colonization. More specifically, fruit trees can represent a particularly valuable component in such systems, since they can offer a relatively rapid source of additional income to the small farmer, as well as improving his family's nutritional standards. The Peruvian Amazon region contains some 150 species of native fruit trees, but lack of knowledge about their requirements, management, and production potential has hampered any serious effort to cultivate them on a large scale. The government institution INIPA (now INIAA), has selected four species to incorporate them in this attempt to develop ecologically sound cropping systems.

In spite of efforts to develop agroforestry systems which will allow the shortening of fallow periods, or even eliminate them by continuous cropping, there still will remain enormous areas where the most appropriate alternative in the foreseeable future will be some utilisation of the fallow forests, which at present are not used. Projects are now being developed in this area (with IDRC support) to study the role of these rapidly-growing fallow forests in recovering soil fertility and the possibilities of exploiting them, through wood production, in the benefit of the poorest settlers, but without interrupting the soil recovery process.

However, the research problems in the tropical forests are not limited to agricultural development. Logging operations have neither been carefully assessed, nor adequately controlled. Forestry regulations in Perú require that extractors plant two trees for every cubic metre of wood obtained, but they are not enforced, are normally ignored by extractors, or simply there are no clear indications as to how and where planting should be done. Therefore, priorities in this area include studies about systems to control of logging operations, a strategy for the protection of over-exploited areas and the establishment of national parks for wildlife preservation.

Fishing

Fishing in Perú has been a constant activity throughout history. Ceramics of pre-Inca civilizations show that fish was the main animal protein in the coast and a nutritional complement in the Andes. The cold Humboldt

Current makes Perú's marine protein resources one of the richest in the world, and the country's second major resource asset, after mining. However, its real potential is still being assessed and its ecological determinants are not fully understood. This makes the industry highly vulnerable to ecological changes, especially to the warm currents that periodically turn south from the Equator and alter the balance of species, disrupting production. Research is being done in this field but the danger of changing ecological conditions and/or overfishing remains large.

Until World War II fishing was confined to small boats and was limited to coastal markets, except for a fish-canning industry that flourished during the war, mainly for export to the United States. Tuna fishing and canning was the main activity during the second half of the 1940's and early 1950's but protectionist policies implemented by the United States determined that from the 69 factories operating in 1953, only five still survived by the early 1960's.

During the second half of the 1950's the production of fishmeal and fish oil from anchovy triggered what has been called the "fishing boom". Initially there were only a few factories and these were rather small. By the early 1960's there were more than 160 factories and a whole city, Chimbote, emerged as a huge shanty-town as thousands of Andean migrants arrived looking for employment and income opportunities.

The most rapid growth of the industry took place between 1958 and 1964. This growth was so impressive that Perú moved from an unimportant 28th position in world production in 1955, to the first place in production and exports in less than six years. The catch stabilized in subsequent years at about ten million tons. Most of it went was processed to produce fishmeal and a by-product, fish oil. Initially, the industry was owned by Peruvian entrepreneurs, but during the 1960's foreign capital progressively acquired the assets until it became predominant. Almost all of the output was exported as nutrients for animal food. The benefits for the economy, though unevenly distributed, were impressive in terms of diversification of exports, foreign exchange earnings and employment generation.

However, by the early 1970's the "fishing boom" had come to an end. It is not clear whether massive fishing upset ecological balance, if changes in the Humboldt current determined a dramatic reduction of anchovy, or if both caused the depletion of the species. Besides, international markets were not absorbing Peruvian output as in previous years and stocks began to accumulate. In 1973, the industry suffered a deep crisis and the government expropriated the whole industry, including the fleet,

infrastructure and processing facilities. As a result the giant public corporation PESCAPERU was established as the biggest fishing enterprise in the world. In the late 1970's during the Second Phase of the military government and in the early 1980's the constitutional government of Fernando Belaúnde proceeded to re-privatize the industry, especially for human consumption.

In spite of the decay of the fishmeal industry, the fishing sector offers the following advantages: it is labour intensive, it provides nutritive animal protein, it provides foreign exchange, and it has developed important backward linkages with the rest of the economy.

In terms of the fishing sector capacity to generate employment, the number of workers operating the fleet in 1968-1969 was estimated at about 18,000 stable fishermen, and between 5,000 and 10,000 occasional fishermen. Fishing also had a significant income generation impact in creating additional employment in activities like manufacturing of fishing gear, ice manufacture, storage facilities, etc. Currently more than 600,000 people depend directly or indirectly on fishing activities.

One of the most important changes in the sector after the boom is the significant growth of fishing for human consumption. One of the measures taken to increase supply were the so-called "joint fishing agreements" with the Polish enterprise RYBEX and the Cuban FLOCUBA. The contracts were based on an original formula that allowed the foreign enterprises to pay the concession rights in fish for human consumption. Agreements were reached with the Soviet Union's SOVRYBFLOT for the same purpose. However, political pressure, based on accusations of depredation, have made the activity of the trawlers extremely erratic, and have been now cancelled, with the only exception of Cuba.

Per capita consumption of fish increased from 9.8 kg. in 1970 to 14.3 kg. in 1986. From that total, 11.3 kg. are fresh fish, 1.2 kg. canned products, and 0.8 kg. dry salted ones. Currently, fish accounts for 35% of total meat consumption in the country.

In 1981 the sector contributed only 1% of total GDP and since then has further reduced to 0.7% in 1985, in spite of a 2.4% growth in that year. However, anchovy is reappearing and the production of fishmeal registered a moderate increase in 1985 and a more significant one in 1986. Output for human consumption decreased in 1985 and 1986 with respect to 1984. In fact, the appearance of the warm *Niño* current seriously affected the

industry in 1983 and 1986, and the first half of 1987 when production registered a sharp decline.

Fishing research and institutional development

In spite of the potential of and the great achievements in this economic activity, several problems are currently affecting its development. One of the main and more dangerous difficulties is the lack of resources and institutional power of the "Instituto del Mar del Perú", (IMARPE) to assess existing marine biomass and control the catch. Another obstacles are the obsolete fishing fleet (95% is 15-22 years old); an inadequate structure of the industrial processing by which the private sector has a flexibility to switch from fishmeal to canned food products according to market conditions, while the State-owned PESCAPERU only produces fishmeal; and, adverse investment and export conditions (e.g. disadvantageous exchange rate).

IMARPE was created to study, regulate and monitor the fishing activities. However, IMARPE's activities have limited to investigate the oceanographic, biological, economic, and technical aspects of marine resources. The importance attached to fishing by the military government led to the creation of the Ministry of Fisheries in 1969, which also had its own research body. When the Ministry was created, IMARPE became a decentralised body with a network of fish culture stations in several places, including the Amazon port of Iquitos:

Investigations at IMARPE have raised the issue of overfishing and determined periodic prohibitions to prevent depredation. Since 1970, IMARPE has developed research on species for human consumption, since previously it was almost exclusively devoted to, the study of anchovy. More recently, IMARPE has assigned a high research priority to the analysis of the change in currents that determine drastic ecological changes that also affect agriculture.

The "Instituto Tecnológico Pesquero" (ITP) set up in 1978 is another public body which conducts research related to the processing of hydrobiological products of the sea and continental waters. ITP received substantial support from the Japanese agency JICA. The "Centro de Transformación Pesquera" (CTP) is the operating unit of ITP, that devotes to improve fishing techniques and to elaborate new products of high nutritional value and low cost. CTP also conducts research on working conditions, health and safety systems and production problems.

Both IMARPE and ITP have faced a series of problems since their establishment. Currently, they suffer from a very tight budget and financial insecurity is causing a loss of human resources and difficulties in carrying out projects.

Seven universities, out of a total of 33, grant degrees in fisheries engineering. There are other six that offer training in marine biology or give incidental courses on the subject. There is little or no coordination between these educational centres and the government research and development institutions.

6.-INDUSTRIAL DEVELOPMENT

Perú has several assets on which to build a dynamic and efficient industrial sector. The main assets are: the actual and latent skills of the Peruvian workers, the natural resource endowment, and its geographic location as member of the Pacific basin.

Many Peruvian workers have sophisticated skills in textile and clothing production, metal-working and other light consumer industries that have slowly built up for centuries. The potential of these industries also benefits from national natural resources, such as metal products, fish and seafood, cotton fibres and top-quality wool, and precious woods.

However, Perú's industrial prospects are somber because various factors constrain rapid industrialization. In the first place, Perú has a small domestic market for industrial products, due to its skewed income distribution and the vast portion of the population that still lives outside the modern economy. Protectionist policies that have rewarded inefficiency in terms of quality and production costs, has impeded the development of dynamic export industrial activities, with few exceptions. The lack of capacity, and incentives, to gain access to external markets, has condemned the industry to depend on subsidies from other sectors and excessive protectionism, making it extremely vulnerable to government policies and unviable in the long run.

Import substitution industrialisation

Like many other Latin American countries, Perú accelerated its industrial growth after World War II. The strategy was oriented to import substitution and the basic tools were also similar to other regional countries: high tariff and non-tariff barriers, generous government

financial incentives, tax exemptions, and support for infrastructural development. The first law of this kind was the Industrial Promotion Law of 1959, during the second government of Manuel Prado. This legal provision was remarkable for its generosity to domestic and foreign capital and total absence of selectivity with respect to activities, since all branches of industry would receive incentives.

Throughout the 1960's import substitution industries flourished mainly because of high profitability rates. Massive foreign investment in the period did not only opened new industries but took over important activities. Between 1960 and 1966 foreign investment in the manufacturing sector trebled. However, most of the industries that developed during the period were heavily dependent on imported inputs, like the vehicle assembling plants, and progressively increased pressure on the balance of payments.

The military implemented a new industrial development strategy and formalized it in the General Law of Industries of 1970. Emphasis was placed on "autonomous and self-sustained growth" in order to reduce the country's economic subordination to the vagaries of the international market. The law introduced a selectivity criterion for incentives and established four priorities, in which the "basic industries" (cement, pulp, capital goods, etc.) were the top on the list. Second priority was given to consumer goods satisfying primary needs of the population, while the other two categories embodied all the rest without a too clear distinction.

Whereas the objectives and priorities were different from those of the previous law, the policy instruments remained the same, with the only difference that protection and subsidies were much larger and the control system became much more complicated. Thus, tax holidays, subsidised credit, over-valued local currency and tariff and non-tariff barriers were the main components of the recipe.

These provisions were complemented with the "Labour Community Law, which established the "industrial communities", to allow workers' participation in management, 25% of annual profits and ownership, with the aim of reaching a 50/50 share distribution between capital investors and labour. Besides, in 1974 the government promoted a "social property sector" of State-sponsored and worker-owned enterprises under the inspiration of the Yugoslav model. Finally, a "labour stability law" gave workers job security after three months of service.

Weak performance and a highly inefficient structure of industry were the

result of the strategy begun in the late 1950's and vigorously pursued during 1969-1978. Although the traditional industries (textiles, garments, beverages, etc.) continued to be important, industrialisation during the 1970's markedly moved towards processing of natural resources and was heavily concentrated in chemicals, basic metals, metal products and non-metallic minerals. These are relatively capital-intensive industries and, consequently, contributed to an increase in the sector's overall capital intensity by at least 50% in real terms during the period 1971-1978. This capital intensive bias prevented the sector from generating significant employment opportunities. For instance, the capital-intensive garments industry remained stagnant while the capital intensive spinning industry became larger and dynamic.

In spite of the incentives to production and the benefit of a captive market, industrial policies during the 1970's created uncertainty and were not efficient in promoting the massive private investment that industrial development required. Complex regulations not only enlarged bureaucracy, but also contributed to the consolidation of trade oligopolies, which, in turn, favoured collusion with the industrial enterprises and high prices. The disastrous performance of manufactured exports affected other sectors, like mining, that contributed the foreign exchange for imports of capital goods and inputs.

The economic stabilisation policies implemented in 1976 forced industries to change their behaviour. The domestic market was severely affected by the economic crisis and the devaluation as well as other incentives for exports shifted production of many firms to outside markets. Even though manufactured exports increased substantially from US\$ 83 million in 1975 to US\$ 676 million in 1979, their share in total production averaged 9%.

Industrial development in the 1980's

In 1980 the government of Fernando Belaúnde completely changed the rules of the game for the industrial sector, and also radically altered the strategic perspective of "inward" to "outward" development. A new industrial law, enforced in 1982, placed greater emphasis on exports and gave priority to industries located in poor regions of the country. The abrupt nature of the changes, particularly the lowering of import tariffs, put the industrial sector under severe economic stress. Domestic recession and few openings for exports abroad further aggravated the problem.

The sector's growth declined between 1981 and 1983, period in which contraband and dumping affected industries like textiles, paper and home appliances. Growth was moderately resumed in 1984-1985. At that time the government estimated that about 40% of installed industrial capacity was lying idle.

The APRA government returned to old protectionist policies and re-directed growth towards the domestic market. The new administration opted for an economic model that emphasizes industrial reactivation based on an expansion of demand through price freeze and real salary increases, which would be matched by a burst in supply, based on existing idle capacity. 1986 saw the manufacturing sector growing at 18%, the highest rate ever recorded, after a moderate 3% in 1985. In spite of this recovery, value added by manufacturing grew only 7% in real terms between 1977 and 1986, compared with a 12% in GDP as a whole. Manufacturing currently employs about 10% of the workforce and accounts for approximately 25% for more than a decade.

A recent study shows an interesting development of small and medium industries, especially in certain manufacturing activities. It was found that in three branches, small enterprises (between five and 20 workers), accounted for a significant proportion of the total number of production units, value of production, and the generation of employment. For instance in the garment and leather industries, small and medium enterprises account for more of total production value.

The three main policy making and implementation agencies of the sector are the Ministry of Industry and Tourism, the "Instituto de Investigación y Tecnología Industrial y de Normas Técnicas" (ITINTEC) and the "Consejo Nacional de Ciencia y Tecnología" (CONCYTEC). The main research priorities are the ways of reducing dependence of manufactures on imported inputs, studies on the development of capital goods industries, industrial sector re-structuring, and mechanisms to promote the development of small and medium enterprises.

7.-MINING

The Peruvian mining sector plays a significant role in the national economy and is the primary source of foreign exchange. Because of the geological formation of the Andes, Perú ranks among the six major mining countries in the world: it is the sixth producer of copper, the third of zinc, the fourth of lead, the second of silver and bismuth. Its proven

reserves are 27 million tons of copper (fine content), 836 million tons of iron, 14 million ounces of gold, 858 million ounces of silver and five million tons of lead. However, Perú has only tapped about 5% of its total mining resources and the sector provides employment to less than 2% of the labour force.

Perú's mineral wealth was already known to the Incas who extracted gold and silver for ritual purposes and copper for tools and weapons. These minerals were transformed to 99% pure metals through ingenious processes. With the arrival of the Spaniards began a series of boom-bust cycles linked to mining activities. During the nineteenth century, after independence, the mining sector went through one of several prolonged depressed periods.

Three factors revived interest of foreign investors in Perú's mining resources towards the end of the nineteenth century. One was a 1890 law that freed the mining industry of all taxes, except for a special mining duty, and forbade taxation of the industry for 25 years. The second factor was the construction of a railway between the coast and the central Andes. The third one was the development of technology for mineral concentration by flotation, that revolutionized the processing of copper, lead, zinc and silver.

By the early twentieth century, foreign enterprises were already operating in Perú. In 1922 a large smelting operation was set up at La Oroya in the central Andes. In the 1920's the government escalated taxation on mining operations and foreign interest decreased. The sector entered once again into a relatively long period of slow expansion.

Foreign capital poured again in the 1950's, mainly because of the Mining Code that substantially lowered the tax liabilities of mining companies. Production of all minerals grew vigorously. In spite of the sharp fall in world metal prices between the Korean war and 1962, the growth of volume allowed value to expand at an average annual rate of 12% between 1951 and 1962.

During the 1960's no new major investments were made. As investment contracted, output in the sector stagnated and total export volume grew by only 3.5% between 1961 and 1969. Nevertheless, export value did grow by over 12% yearly, due to an almost 10% increase in prices.

In 1968 the military government introduced drastic changes in the sector, aimed at three main objectives: to reduce foreign predominance, to

accelerate growth, and to distribute a larger share of the income generated to the workers. Foreign and domestic firms were allowed to participate, but basically in partnership with the State or in medium and small-scale operations. To build up the institutional framework through which to implement its new policy, the government created MINEROPERU in 1971, as the main promoter and owner of large mining programmes. In 1973, MINPECO, a State-owned monopoly for the foreign and domestic marketing of most metals was also established. Two expropriations gave birth to two huge companies CENTROMIN PERU and HIERRO PERU.

In the early 1970's, MINEROPERU began extensive project planning and in 1973 embarked on its first project, a new 150,000 tons copper refinery at Ilo in the department of Arequipa. The refinery, built by a Japanese contractor as a turn-key operation, was completed in 1975. Parallel to this project the State company started its own works in two other projects: the copper mine of Cerro Verde (Arequipa) and a phosphate mine at Bayovar (Piura). The latter was intended allow the elaboration of fertilizers in order to substitute imports. MINEROPERU also increased the country's refining capacity building a zinc refinery in Cajamarquilla (near Lima), which started operations in 1981. The Cerro Verde project ran into problems and the expansion of the mine has been difficult to finance

During the period 1970-1976, only two major projects were developed and mining output was virtually flat. Production was affected by prolonged strikes in 1975-1976 and also by the drop in international demand, mainly for copper. However, the value of exports expanded at an annual rate over 6.5%, principally because of a 6% increase in the average export price of minerals exported by Perú. The Ilo refinery mitigated the negative impact of low world prices, by increasing the share of Peruvian copper refined domestically from 19% in 1975 to 25% in 1976.

Mining in the 1980's

The government of Fernando Belaúnde tried to promote domestic and foreign private direct investment in the sector. In 1981 the State monopoly of MINPECO on refining and marketing was eliminated and the Executive branch of the State was authorized to grant concessions on ores previously reserved for State exploitation. Also, MINEROPERU was authorized to develop joint ventures with private firms for large scale projects previously reserved for public enterprises. Tax reductions and tax legislation stability until 1998 were also offered as incentives for investment.

In spite of these efforts, the only recent major developments were CENTROMIN's Cobriza copper mine which came on stream in mid-1982, and a joint venture with State participation for the Tintaya copper mine in mid-1985.

Currently, entrepreneurial activity in the sector extends from small scale local projects to huge international company operations run by national and foreign enterprises. The largest mining corporations are CENTROMIN PERU, HIERRO PERU, MINEROPERU and the foreign company Southern Perú Copper Corporation (SPCC). Together these companies account for two-thirds of the country's total mining production and 40% of the sector's employment. Twenty medium-scale mines and hundreds of small-scale enterprises make up the rest of the sector. Most of the medium-scale mines are polymetallic (predominantly lead, zinc and silver) and have evolved into efficiently managed operations capable of competing in the international market. Copper accounts for slightly less than half of total metal production.

During 1985, production in the mining sector grew, for the second consecutive year, by approximately 6%, increasing the sector's participation in the GDP to more than 12%. This performance was achieved despite depressed international prices for minerals. During 1986, the sector entered a difficult period, mainly due to a 28% increase in production costs, a fixed exchange rate, and further decline in prices, which determined a fall of 4% in the annual production. During 1987 the situation has not been different and both production and value of exports declined during the first semester.

Serious doubts about the future of this key sector for the Peruvian economy are being expressed by experts. It is estimated that if prices continue at their current low levels or decline even further, the sector would stagnate for at least 18 years. Moreover, many of the potential big projects would not be economically viable even at much higher prices, because of financial costs, the retreat of foreign investors from such long-run ventures, the State's lack of capital resources and the uncertainty about profits. Considering that in the past mineral resources have financed a good deal of economic growth, such a prospect forces Peruvians to redefine the country's development strategy. Besides, since growth based on the foreign exchange generated by this sector has made the Peruvian economy too vulnerable to external variables, it is indispensable to diversify exports in order to achieve more sustained development efforts.

8.-ENERGY

Perú is richly endowed with energy resources. Hydro power is its largest potential source, although 4% of that potential has been developed. Hydrocarbon resources are about 1.4 billion barrels of oil (836 proven and 538 probable) and 1.9 trillion cubic feet of natural gas. The estimate for coal reserves is of about one billion tons, not all of them recoverable. Forest resources, which cover almost 60% of its territory, are concentrated in the thinly populated Amazonian region.

Biomass energy sources met around 32% of total demand, with commercial energy providing the other 68%. In rural areas most of the energy consumption is biomass, while commercial one is very low (one-seventh of the urban areas consumption). The modern sector of the Peruvian economy is based on liquid fuels, which cover more than 70% of its demand. Petroleum accounts for 60% of energy consumption in the industrial sector, 67% in the mining sector, and 100% in transport.

Petroleum and gas

Commercial oil production in Perú dates to the nineteenth century and was concentrated in the northwestern region. Perú was a net oil exporter between 1930 and 1960, but became a net importer until significant reserves were commercially developed east of the Andes in the 1978. Crude oil production remained relatively constant between 1970 and 1976 but increased dramatically thereafter, when the petroleum produced in the Amazon was pumped through the 852 km. Trans-Andean pipeline that began operating in 1977. Two-thirds of Perú's oil output is pumped from the Amazon through this pipeline to the port of Bayovar on the northern coast. Net imports of oil amounted to US\$ 220 million in 1977 while net exports were US\$ 145 million in 1978.

The ownership and development of the country's oil resources is under the direction of PETROPERU, a State-owned enterprise established in 1969. PETROPERU is responsible for the domestic supply of crude oil and oil products, for all refining, marketing and basic petro-chemical activities in the country, either by itself or through contracts with other companies. The State-owned company now accounts for half of total oil production and operates six refineries with a distillation capacity of 180,000 barrels per day. Petrochemical plants include carbon-black and a solvents plant which produces acetone and isopropyl alcohol.

Foreign companies have been operating in Perú under production sharing agreements with PETROPERU, though specific conditions have varied

through time. The original formula, called the "Peruvian Model", was based on a 50% oil split between the State-owned enterprise and the foreign contractor, tax stability for the latter, and PETROPERU assuming the 30% income tax on total production. If no oil was discovered in seven years the area returned to PETROPERU. Besides, the latter had the right to choose 50% of the area, provided all plots were united in a single block.

Occidental Petroleum was the first firm to sign such contracts and also the one that discovered the largest commercial reserves in the Amazon region. Several other international firms signed contracts but their exploration efforts turned out to be commercially inviable.

In December 1980, shortly before transferring power to the constitutional government, the military renegotiated the oil contracts arguing drastic changes in the international market. The main modifications included the obligation of the contractor to pay income tax, the reduction of the exploration term from seven to six years, and a new formula that reduced the contractor's share proportionally to the increase in oil prices, and the elimination of the tax stability clause.

These conditions were modified again by the constitutional government shortly after taking office in July 1980. A prime concern of the new administration was the decline in exploration activities that, coupled with projected growth in domestic demand reflecting increased economic activity, threatened to transform the country again in a net importer by the mid-1980's. Drilling activity declined beginning in mid-1975 as a result of reduced expectations of finding new oil and little incentives by the government. The new government declared that the contracts were promoting exploitation and quick profits but were discouraging exploration. In order to redress this trend, a new petroleum law was enacted trying to stimulate successful explorations. The new provisions maintained the 50/50 oil split and the contractor's obligation to pay income tax, but introduced specific incentives that included income tax credits for reinvestments which result in new production areas, gradual elimination of export taxes, and the opening of secondary recovery projects, previously reserved for PETROPERU.

The results of such policies have been poor. Decline in oil prices, the uncertainty created by the APRA government's expropriation of the Belco off-shore operations in 1985 and PETROPERU's lack of financial resources, have further aggravated the problem. Production has declined from 200,000 bpd in 1985 to an estimated 160,000 bpd in 1987. This drastic fall is not only due to decline in reserves but also because of serious

financial shortages in PETROPERU. Because of the drop in the rate of production and due to the fall in the quality of the crude, PETROPERU is preparing to import light crude oil. Exports in 1986 fell to US\$ 235 million, from US\$ 645 million in 1985, due to lower production and international prices. For 1987, exports are forecasted at 48,000 bpd compared with 59,000 bpd in 1986, further reducing foreign exchange revenues in spite of better international oil prices. Most important of all, oil reserves have fallen to 500 million barrels, enough for less than eight years' supply at present production rates, compared with 835 million barrels in 1982.

In spite of this bleak scenario, a recent gas discovery by the Royal Dutch Shell company in an area between the departments of Ucayali and Cusco in the southern tropical forests, offers the potential of transforming the country's long term energy outlook. Reserves are estimated at ten trillion cubic feet, equivalent to two billion barrels of oil, and are the third largest deposits in Latin America, after Venezuela and Argentina. The development of these reserves, however, pose a formidable challenge since two 600 km. pipelines would be needed. The pipelines and the separation plants would cost more than one billion U.S. dollars, excluding the installation of downstream pipelines and the costs of transforming the oil-fired plants to utilise gas. Other options include the export of the gas to Brazil through Bolivia, where Occidental Petroleum has pipeline facilities. Off-shore gas reserves discovered by Belco before it was Expropriated raised interest in this energy source. However, uncertainties about its exploitation have hampered developments in this respect.

Several local and international researchers and consultants have stressed the need to undertake detailed studies about the potential for natural gas as an alternate source of energy. Oil savings would help to increase exports and/or extend the life of the existing reserves.

Biomass

The vast majority of the Peruvian population depends on fuelwood and residues for cooking fuel. Therefore, biomass energy is of particular importance in the formulation of a national energy policy, especially because traditional biomass fuels meet subsistence needs of the poorest strata of the population, mainly in the rural Andes. However, fuelwood supplies are becoming progressively scarce, precisely in the Andes, which has less than 0.5% of the country's forest resources. Therefore, reforestation efforts are urgently needed to slow the depletion of stock.

Regional scarcities are clear from statistics on wood and charcoal production. Out of 24 departments, six (Ancash, Cajamarca, Cusco, Junín, Piura and Puno) produce over half of the total wood consumed in the country. The situation of charcoal is even more constrained, with two departments (Lambayeque and Loreto) producing 95% of the officially reported charcoal output. Due to the dramatic deforestation of the Andes, the government has made the production and transport of charcoal to Lima illegal. However, a study made in 1983 revealed that controls were extremely loose and the forest conservation objective was not being achieved.

Annual fuelwood consumption is estimated at about 4.5 million cubic metres, or 0.64 cu.m./capita/year over a regional population of seven million. Although the Ministry of Energy and Mines (MEM), the General Direction of Forestry and Fauna (DGFF), and the National Institute of Forestry and Fauna (INFOR), all agree that the deforestation is extremely severe, the exact rate has not been determined because of inadequate distinction in available statistics between systematic clearcutting, rapid forest degradation by partial cutting, and prevention of forest generation by agricultural clearing and livestock grazing. In addition, animal dung is being diverted from its use as a fertilizer to use as cooking fuel, resulting in a loss of land fertility and food production.

Fuelwood problems and forestry are closely interwoven, so information about research projects, institutions and action programmes are dealt with in the "Agriculture" section of this document.

Electricity

Available information indicates that slightly over 40% of the population in Perú has electricity service. There is unsatisfied demand in the areas served by public-service concessionaires, and some industrial and agricultural activities have to generate their own electricity at high costs in spite of being located close to electricity production facilities, because there is no alternate supply. Also, income levels of most of the 60% of the population now not served as well as topographic difficulties impose serious limitations to service expansion.

Also, during the 1970's the power sector suffered a significant outflow of professionals and technically skilled personnel, resulting in decision-making problems and inadequate maintenance of regional power systems. Even though the problem is not severe for the Lima area,

The resource base, however, is impressive. The 1977-1979 country-wide survey of hydroelectric resources indicated a theoretical potential of 206,000 MW, 30% of which has since been identified as technically feasible. The richest water resources are located in the eastern slopes of the Andes and upper tropical forests, with more than 80% of the total installble capacity. The Pacific watershed accounts for 14% and offers advantages for high head developments close to large markets. The rest of the potential belongs to the Puno department in the Lake Titicaca basin. This huge potential notwithstanding, the difficulties involved in linking plants based on these resources to the major actual and potential markets, mainly cities along the coast and mining centres in the Andes, make the financing and development of projects extremely hard.

The organization of the Peruvian power sector has undergone significant changes in the last 15 years. In 1972, the government issued a law which made the State the sector's primary actor. ELECTROPERU was created as an enterprise by merging four existing entities involved in power generation and distribution. Power sector assets which previously had been financed by customer contributions became State property. The State also acquired control of foreign-held utility shares, and a policy of national tariff equalization was adopted.

In 1982, another law established that the structure of the electricity activities had to be decentralised. ELECTROPERU retained overall responsibility for sector planning, management and development, while electric service would be provided by regional and local utilities. MEM may also grant concessions to independent producers to develop hydroelectric or geothermal resources as a complement to ELECTROPERU's national power development plan.

Eight public service utilities now operate in the country. ELECTROLIMA is the largest of these companies, serving 56% of consumers, all in metropolitan Lima. Self-producers, that account for approximately one-third of Perú's total installed capacity, are led by the mining enterprises SPCC and CENTROMIN PERU.

Total generation of electricity in Perú grew by an average 6% per year during the period 1972-1980, with output by public service companies growing at 8% per annum and independent producers at only 2.6% per annum. The evolution of energy consumption in the existing public-service electricity systems depends not only on the country's growth, but also on the installed capacity and energy availability. In fact, a fairly recent

study by the World Bank, pointed out that in Perú, the correlations of electricity demand with global economic indicators are somewhat erratic in the short term. For instance, a boom in the mining sector has little impact on public service demand growth, since most mining operations generate their own electricity. The same report indicates that the sector lacked a realistic expansion programme for the period 1983-1993, mainly due to planning deficiencies. One of the main problems is the lack of resources to increase investment in hydropower, since electricity is heavily subsidised and a significant percentage of production in places like Lima is not being billed.

Two other serious problems are also affecting the sector. A significant portion of the generating plant operated by ELECTROPERU and local governments is out of service because funds and personnel are too scarce or simply lacking. Another problem is that with the exception of bagasse used as fuel in sugar mills, thermal capacity installed by autoproducers consumes petroleum products.

The MEM and ELECTROPERU have defined a work programme to create 220 small generation, transmission and distribution systems, at an estimated cost of US\$ 200 million. Small Hydro facilities are also a matter of study at a national level to provide electricity in the rural areas. In 1979 1,138 rural centres with good possibilities were identified. About half of those had no access to the service. In spite of these advances, a more coordinated planning approach and data on rural demand are still lacking. Research in these areas is indispensable. Other topics for research are the potential for producing turbines and spare parts in the country and the development of an standardization of technical designs, construction types and materials in order to reduce costs and facilitate maintenance.

Coal and other energy sources

The actual quantity of Peruvian coal reserves is still uncertain and estimates vary widely, although several sources contend that reserves are about one billion tons. Even though these reserves are "inferred", there are indications that while some of the coal is sufficiently cokable to be used in a mixture with imported coking coals, the bulk of it is steam coal. Lignite is also known to exist in Tumbes and in the northern part of the Amazon region. No systematic study has been made of these deposits.

Perú had a prosperous coal mining industry until the end of World War II, but production steadily declined since then. Production began to increase after 1975, and output of that year was doubled in 1981. There are ample

possibilities of developing small coal mines if a firm market is established and credit provided. The principal consumers of coal today are the steel industry and the small smelters and brickworks around Lima and Trujillo. However, the potential market is much larger if conversion from oil is adequately promoted in thermal power plants, cement works, metal smelting, and even households. One of the ideas that has been under discussion for some time is the elaboration of coal briquettes for household use. The briquettes could substitute heavily subsidised kerosene and scarce wood as a cooking fuel. Besides, the process of manufacturing is fairly simple and both molds and stoves could be made by the local industry involving little or no foreign exchange costs.

However, a recent report on the issue stated that the efforts to develop the coal industry would face several constraints besides credit and a firmly established market: lack of suitable coal burning equipment for household and industry use, lack of detailed geological surveys, inappropriate nature of large-scale mechanized mining for prevalent geological conditions, and difficulty in transporting coal from the mines to potential markets on the coast.

A step towards the development of the coal industry was made in 1981 with the establishment of the State-owned Empresa Promotora del Carbón (PROCARBON), under the management of four large State corporations. The Instituto Geológico Minero Metalúrgico (INGEMMET) has made some studies on the coal mining industry, but its results have not been disseminated.

Data on geothermal energy in Perú are scarce and of very poor quality. However, considering that the gradients in South America generally are high in the Andes area, the geothermal resource base of the country is probably above world average. Until recently, little interest existed in geothermal power, despite the fact that the geology of the southern part of the country is very favourable for its development. Very recently, ELECTROPERU and SPCC, which has copper mines and smelter facilities in the area, have shown some interest in developing this potential source.

However, there are serious institutional constraints to geothermal development in Perú. On the one hand, the private sector is prohibited by law to develop such resources. On the other, ELECTROPERU and INGEMMET lack the experience, equipment, human and financial resources to do research and development.

Perú's geographic location favours the development of solar and wind energy. Work on solar and wind energy is strongly attached to the public

technological research institute ITINTEC, and to a lesser degree, to the National University of Engineering, UNI. ITINTEC developed programmes that have resulted in the installation of solar water heaters in CENTROMIN mining centres in the central Andes and in a textile factory in Arequipa, among other cases. Also, windmills were installed in Puno and there are some 2000 of them to pump irrigation water in the Miramar area of Piura.

In spite of these achievements, there is a vacuum in the marketing and dissemination of these renewable energy technologies. Little work was done in demonstrating their relatively simple technical features and their economic advantages. In this sense, ITINTEC's links with industry could be better used, especially for commercial-scale local manufacturing of the equipments, and coordination with other government agencies could be enhanced.

1.1.-MACROECONOMIC POLICY

The quality and continuity of macro-economic policies has been a problem for Perú throughout its history. Unlike countries like Colombia, where despite political changes the basic economic policy guidelines have been respected for decades, in Perú the rule is that political changes are invariably encompassed by abrupt modifications of macro-economic policies. In many cases, the internal coherence of policies is not very clear, in others lack of knowledge about interrelated phenomena, like the links between inflation and devaluation, lead to serious mistakes in policy making.

Two kinds of problems, which in fact are closely interwoven, can be found in this area: the long-term "structural" issues, and the continuous need for short-term economic stabilisation measures once the economy has reached a point of intolerable imbalance. Problems like long-run slow growth, overall worsening of income distribution, strong dependence from international boom-boost cycles in the international economy, and recurrent balance of payments bottlenecks typically belong to the first category, but manifest themselves in conjunctural crises that are usually tackled with classic short-term economic and financial measures.

Since the mid-1970's Perú has suffered pervasive macro-economic disequilibria and, with the exception of very short periods, is the victim of a recession that lasts for more than a decade. By the mid-1980's per capita income had been reduced to levels below those prevailing in the mid-1960's. Both inflation and devaluation reached historical peaks by

1985, despite a price freeze and a fixed exchange rate.

The problem is further aggravated by a huge external debt that in 1985 represented 95% of the GDP and whose service demanded more than 50% of total export foreign exchange earnings. Falls in domestic savings and investment cast serious doubts on the viability of self-sustained development, that appears as the only alternative considering the current international financial drought, let alone the isolation of the country due to its position of not paying the external debt beyond the equivalent of 10% of its exports.

Although the causes of such bleak prospects are multiple, there is a wide consensus that past economic policies have a great responsibility for this situation. Large public deficits, loose monetary policies, disincentives to exports, excessive external borrowing, poor income distribution, lack of savings and investment are problems that require detailed studies oriented to better policy design and implementation. The social and economic impact of such policies cannot be overstressed, since the viability of democracy and of Perú as an independent nation-state are at stake.

The APRA government has opted for an original, though risky, heterodox economic policy, which seeks to push for high growth rates. The little incentives given to exports means that growth will be financed by government expenditure, regardless of the deficits it can generate. Also, substantial increases in demand, envisaged as the best way to create a dynamic circle of growth, will stimulate production at the beginning but, once the installed capacity is fully utilised and foreign exchange become scarce due to increases in imports, the crisis will be inevitable. This is not unlikely since Perú has no access to international financial resources, and the mobilisation of domestic resources has not been successful. Therefore, the risks of hyper-inflation and supply shortages are high.

On the other hand, the ortodox stabilisation policies do not offer a better alternative, since the austerity they impose on society, particularly on the poor, is not compensated by a substantial flow of external resources or the guarantee of sustained growth once the equilibrium is restored. Hence, research on macro-economic topics is not only important but also urgent.

The research capacity in these field is substantial. Universities, mainly private, and non governmental organizations have the human resources and experience to carry out highly sophisticated research on its various topics. Currently, the research agenda is concentrated on the above mentioned topics.

10. FOREIGN POLICY

For a long time Perú had a relatively passive role in foreign affairs, which led to an inordinate influence by foreign countries, notably the United States. During the 1970's the military government sought an independent, non-aligned course in its foreign relations, through the "diversification of dependence". The establishment of diplomatic relations with the socialist countries and more intense contacts with nations of western Europe and Asia marked a more active approach to foreign affairs. With this new international strategy the military pursued economic and political gains, like access to financial and arms markets as well as the recognition of the "Peruvian Revolution". The expected outcome was that new international political alliances would counteract a potential blockade or other economic retaliation policies by the United States, especially after the expropriation of several U.S. companies.

The shift of the Peruvian foreign policy was evident in many fronts, including multilateral organizations. For instance, Perú reversed its position with respect to the exclusion of Cuba from the Organization of American States (OAS), supporting the lifting of sanctions. Its active participation in the Andean Pact, as an alternative to the Latin American Free Trade Association (LAFTA), and in the creation of the Latin American Economic System (SELA), also reflects a clear interest in assuming a position of leadership in Latin America, especially during the first half of the 1970's.

Former territorial disputes with various neighbours have a decisive weight in Peruvian foreign policy. During the 1970's the political presence of the military underscored this factor. However, the fact that the military respected the professional career path of diplomats and kept to a minimum their interference in the formulation and implementation of foreign policy, maintained a reasonable balance between strictly military defense measures and diplomatic initiatives oriented to reduce tensions and build long term peaceful relations on a sound basis.

The two more difficult issues in this respect were the rivalries with Ecuador and Chile, and the Bolivian condition of *hinterland* country. The refusal of Ecuador to fully accept the terms of the international agreement reached in 1942, which fixes the legal boundaries between both countries, has been, and still is, a source of tension between them. Official Ecuadorean maps show a large part of the Peruvian departments of Loreto and Amazonas as part of Ecuador, violating the agreement. Border skirmishes have erupted on occasions, and a *blitzkrieg* took place in 1981,

when Ecuadorean troops built military installations several kilometres within Peruvian territory, in a zone where surveillance is extremely difficult.

The latent conflict with Chile is more complicated. Historical resentment over the loss of vast and valuable territory in the 1879 Pacific War presents a potentially more serious source of conflict. Although bilateral relations improved during the 1960's and early 1970's, when General Velasco and President Salvador Allende made efforts in this direction, they again deteriorated in the mid-1970's, after the military coup in Chile, and with approach of the war centennial in 1979. After rather serious diplomatic incidents and rumours of skirmishes in the border, the military conflict did not materialize. However, an ominous arms race developed between both countries as their military leaders justified large purchases of military equipment, substantially increasing their external debts, by the need to match the other's acquisitions. In spite of this setback, relations have improved steadily during the 1980's.

Bolivia also lost territory during the Pacific War, and with it access to a Pacific Ocean port. The Treaty of Ancón, signed to put an end to the territorial dispute, provided that Perú has to be consulted and must consent to any Chilean concession of former Peruvian territory. Successive discussions between Chile and Bolivia, during the mid-1970's and more recently in the first half of the 1980's, have encountered Peruvian counterproposals that somehow influenced the already uncomfortable negotiations between those countries. After some tense periods when negotiations broke down, Peruvian-Bolivian relations have warmed again.

The Peruvian diplomatic strategy to reduce border tensions with its neighbours has been, and still is, based on the development of key common development interests. In the case of Ecuador, Peruvian diplomats proposed the implementation of a common irrigation project in the border area and offered access to the Amazon river, the heart of the dispute, provided certain regulations are respected by Ecuador. The irrigation scheme, named Puyango-Tumbes after the rivers involved, seeks to jointly develop agriculture in a rather depressed border area. An agreement was signed by both parties in 1970 and, after a series of discussions and setbacks, they finally elaborated in 1987 the common terms of reference for the project that will start in 1989.

A series of initiatives have also been taken by the Peruvian Ministry of Foreign Affairs to improve Peruvian-Chilean relations. Discussions about

the possibility of establishing an area of "shared-sovereignty" with that country and Bolivia have taken place in amicable terms. But the most important one is related to the reduction of military expenditure through a mutual commitment to peace. Conversations started in 1985 and interesting advances have been made, up to the point that Perú halved a warplane purchase order to France in 1986.

In the case of Bolivia, Perú granted free access to the southern ports of Ilo and Matarani to facilitate its exports. Besides, both countries are studying the possibility of taking advantage of the Lake Titicaca waters for agricultural development.

Relations with Brazil have been at best distant for a long time. However, the mid-1980's marked a new period of closer ties, promoted by the Peruvian government. Although no territorial disputes existed between both nations, Brazil's rapid development of its Amazon region near the Peruvian border is a matter of concern, but at the same time is perceived as an opportunity to develop one of the most neglected border regions. A meeting between the presidents of both countries in mid-1987 has opened new avenues for cooperation and joint development efforts. Brazil's interest in becoming a world power demand, among other things, a way out to the Pacific Ocean, and Perú is the most advantageous alternative for that purpose in the long run.

During the second government of Fernando Belaúnde (1980-1985), Peruvian foreign policy lowered its profile but the Ministry of Foreign Affairs maintained some of the previous basic guidelines. The APRA government has reinstated a high profile diplomacy, including a very active participation in the non-aligned movement as well as in international economic negotiations regarding debt and basic products. Other policy objectives include the validation of geographical rights related to marine resources in the 200 miles, to natural resources in the Antarctic, and the recognition of Perú as an Equatorial country with privileged access to slots in the geostationary orbit to place satellites.

Research on international relations' issues is relatively recent in Perú. Endowed with a critical mass of highly qualified diplomats, the Ministry of Foreign Affairs develops its own investigation activities, but rarely disseminates them. The establishment of non governmental organizations, like the "Centro Peruano de Estudios Internacionales" (CEPEI) and the "Asociación Peruana para la Paz" (APEP), has promoted independent research on these topics and has allowed the dissemination of studies related to them. Besides, close links between these non governmental

organizations and the Ministry have developed, facilitating a better flow of information and a greater influence of independent experts in foreign policy.

11.-SCIENCE AND TECHNOLOGY POLICY

In the 1950's the saturation of external markets for agricultural products, and of internal markets for industrial products, made evident the need to develop scientific and technical activities (S & T) in the agrarian and industrial sectors. The State took the main role in this regard, helping in the development of existing institutions and creating new ones, like the Institute of Industrial Technology in 1950 and the National Commission of Nuclear Energy in 1955. The development of universities in the subsequent years strongly reinforced this trend.

National policy and coordination institutions were also established. The National Council for Science and Technology (CONCYTEC) was created for the formulation of national S & T policies, and to stimulate and finance R & D projects in a coordinated fashion. Its major policy guidelines are : formation of high level human resources, improving scientific and technological information, promoting research in priority areas, and supporting R & D institutions.

Institutional development

However, it was in the 1970's that the issue of scientific and technologic capacity became an explicit national priority directly linked to industrial development. Furthermore, the military government created sources of stable funding for S & T activities at the sectoral level, which did not depend on the process of negotiation that governs the budgetary allocations of the State and its ministries. The General Laws of Industries, Fishing, Mining, and Communications established percentages of the net income of enterprises that are to be devoted to research and development (R & D). The first two had to allocate 2% while the other two 1%. This opened the possibility of a ten-fold increase in S & T investment overnight.

It was in the industrial sector where the use of this type of funds went furthest as a way of implementing the sectoral S & T policy. The organization in charge of this, ITINTEC, was created in 1972. ITINTEC's mission is to identify, select, assess and control research projects. Research projects can be carried out by the enterprises themselves, either

individually or collectively, or can be contracted to independent research centres. If the firm does not use its 2%, this amount goes to ITINTEC, which may then apply it to support other programmes of its own. In fact, ITINTEC has the additional functions of generating demand for R & D, administering the funds, and carrying out its own research projects in selected fields. Also, ITINTEC became the agency in charge of patents, trademarks and technical standards for industry.

Since its approval, the 2% regulation has had a very strong influence on industrial R & D. Its impact, however, has not been as impressive as the projections of its mentors. It is estimated that only 40-50 companies have established facilities suitable for serious R & D, but the bulk of the work carried out in them relates more to quality control than to R & D as such.

The crisis of the industrial sector since the second half of the 1970's has reduced available funding for industrial R & D activities. Not having a budgetary allocation, ITINTEC now faces the dilemma of stimulating in-house research in firms or securing funds by not doing so. One of its main problems is that it is losing its best human resources because of low salaries and, sometimes, due to the impossibility of financing new projects. The industrial-related knowledge is probably the weakest in the country. Two big dangers emerge from this: further deterioration or destruction of an institutional capacity that has cost to the country a big human and financial effort, and lack of support for a vital sector where development hopes are concentrated.

A recent diagnosis revealed the profound crisis in R & D is not limited to the industrial sector but affects the entire range of its activities. In 1980, Perú spent only 0.33% of its GDP on the main S & T activities (planning and administration of S & T, formation of scientists and R & D projects). In 1981 CONCYTEC received only 1.6% of the government investment in S & T, and has gradually become a bureaucratic agency with little influence over the scientific community, including the public sector.

Though sparse and not reliable, information reveals that very little research is currently being done in universities, due to lack of funds and adequate stimuli. Considering the close links between higher education and S & T development, the crisis affecting the Peruvian universities is seriously hampering research efforts. It not only limits the capacity for R & D work but also affects the quality of teaching and the professional activities in the country.

Even though in the present prevailing circumstances it is difficult to promote S & T development, some institutional measures can help to increase the impact of research on development. Technology policy should not be separated from sectorial policy in order to identify priorities and secure the utilisation of research results. Moreover, researchers have to approach the user since the very beginning of the project or programme in order to secure the utilisation of research results. Other area where substantial improvements can be made is in the coordination of research policies, programmes and projects between existing institutions of the public and the private sector. In this sense, the development of closer links between them, non governmental organizations and private consultancy firms would be very positive.

12.-INSTITUTIONAL AND LEGAL DEVELOPMENT

Political instability and a long record of *de facto* military governments have been outstanding features of Peruvian politics. However, this long process has gradually led the majority of the population to the conviction that the democratic system is indispensable for economic progress, personal safety and the development of cultural values. Proofs of this are the massive participation in the last four elections (two presidential and two municipal), even in the rural areas where terrorists threatened the voters, and the fact that in spite of economic turmoil, increased criminal activity and politically inspired-violence, the population rejects an authoritarian take-over of political power.

However, after 12 years of military rule, political institutions are weak and, in many cases, incipient and inoperant. The economic crisis, the increasing violence and greater political participation are exerting a strong pressure on these institutions that find it very difficult to cope with popular demands and to adequately handle the diverse manifestations of an acute economic and social crisis. On the other hand, the lack of a "democratic culture" in the population, that has lived much more years under authoritarian rule than under a democratic system, makes it all the more difficult, since attitudes, methods of formulating claims and a lack of respect for laws and authority, many times provoke repression and trigger violent reactions from government.

Three main issues have been emphasized by researchers as crucial for the consolidation of democracy: respect of civil rights, improvements in the administration of justice, and more efficient public administration.

Civil rights

During the successive military regimes, civilians had only limited individual rights since the routine was to suspend those constitutional guarantees at the government's will. Even though military dictatorships in Perú have been "soft" if compared with recent experiences in the southern cone, violations of citizens' rights were not uncommon. For instance, during the last military government, civilians were routinely brought before military courts, *habeas corpus* was alleged to be an ineffective remedy, and this resulted in lack of appeal of civilian courts. In 1979, the new Peruvian constitution, provided for the limitation on jurisdiction of military courts, re-enforcement of the right of *habeas corpus*, and the right to free speech.

During the first years of the 1980's, the government of Fernando Belaúnde managed to substantially improve the record of respect to human rights in Perú. However, the escalating terrorist violence in the central Andes promoted by *Sendero Luminoso* forced the government to suspend individual guarantees in the area and to impose military control over it. The presence of troops in the zone rapidly deteriorated the situation of civil rights and claims about disappearances of peasants and indiscriminate repression, involving torture and executions, became more frequent. The nature and tactics of the movement, which constantly avoids direct confrontation, reinforced the military conception that widespread repression and tight control over the population were the only ways to success.

The situation apparently improved with the APRA government that took office in July 1987. In his inaugural speech to Congress, the newly elected President Alan García emphasized the need to combat terrorism within the framework of civil liberties granted by the Constitution and the democratic system. Serious investigations about human rights violations, dismissal of high-rank officers who were found responsible and a significant reduction in disappearances were important achievements of the governments' first year. The international organization America's Watch published a report in June which was extremely favourable for the government.

But things went wrong. Taking advantage of the fact that the Socialist International Meeting was about to be inaugurated in Lima with the attendance of international personalities, *Sendero Luminoso* prepared a synchronized operation in all the Lima jails where it had militants. Due to

lack of control, negligence and an unacceptable approach to prison management, the *Senderistas* were allowed to dig tunnels and trenches, built embankments and set up "boobie traps" in the building where all concentrated at *El Frontón* prison, on an island off the port of Callao. Terrorists also took control of another two prisons, including the reclusion centre for women.

Having failed mediation attempts, President García ordered the military to take action and restore order. The result was a massacre in which 500 inmates were killed, including 380 *Senderistas*. In the Lurigancho prison, more than 100 prisoners were shot at pointblank range after surrendering. The next day the President acknowledged that excesses had been committed during repression of the rebellion and promised to punish the responsible officers and rank and file. *Sendero*, on its part, retaliated in the most irrational manner placing a bomb on a tourist train between Cusco and Machu Picchu, killing five foreign passengers. Also, six engineers working in development projects were murdered in Ayacucho. Attempts to clarify the events and to determine responsibilities have encountered obstacles, like the opposition of the officers to submit testimony in civilian courts, but have also been subject to political manipulation by some leftist groups that refuse to condemn *Sendero* and its ruthless methods.

The economic crisis and the intensification of terrorism are posing a serious threat to civil rights and their enforcement. Educational campaigns to disseminate laws and procedures, the development of organizations that can help the poor and the illiterate to defend their rights and monitoring of the way laws are being applied, are the most urgent priorities in a crucial theme, which is directly linked to the consolidation of an authentic democracy.

Administration of justice

Improvements in the administration of justice are indispensable not only to defend civil rights, but also to reduce social conflict in all spheres of activity. The problem with the Judiciary is that successive interruptions of constitutional rule have created a subservient attitude towards the Executive, based on a certain "fine conjunctural sensitivity", that many times produces unacceptable sentences or makes certain claims totally unviable due to their political or economic instance on the government.

However, studies during the 1970's and 1980's show that the Judiciary was not only inoperant for politically sensitive cases, but also for

routinary cases involving property rights, debts, indemnizations or divorce. The length and complexity of procedures (an average case for the recovery of a real estate property could last between 4-5 years or more), determined that vast sectors of the population sought alternative ways of reaching an agreement. For instance, big enterprises rarely took their significant conflicts to court, but rather preferred to submit to arbitration. Specialized instances, like labour courts and agrarian tribunals to solve agrarian reform cases, were created to avoid the Judiciary's inefficiency in critical conflictive areas.

The Judiciary obviously suffers from an endemic financial problem, and its consequences on personnel shortages and qualifications, lack of automation to improve information flows and speed-up procedures, and widespread petty corruption. But research and technical improvements (training and equipment), can have a significant impact on its efficiency.

One of the areas currently being explored is the application of informatics to the administration of justice, adapting the experiences of other countries. Curiously enough, during the first phase of the military government a Judiciary Reform Commission (CRJ) was created to design a strategy oriented to improve the quality of justice administration. The commission supported interesting research and developed close links with non governmental organizations like DESCO. Lack of political support, vested interests, and the loss of influence of judges identified as sympathetic to the military, determined that few of the recommendations were actually implemented.

Improvement of public sector administration

There have been several attempts to reorganize the Peruvian bureaucracy. All have failed.

Contrary to what is normally contended, the Peruvian public sector began to grow significantly during the first Belaúnde government (1963-1968), and the military only continued the trend at a faster pace. The Belaúnde government tried to create a State apparatus with more capacity to intervene in economic growth and social change, and therefore incorporated to the public sector technicians with a more "developmentalist" attitude. Belaúnde also created the "Oficina Nacional de Racionalización y Capacitación de la Administración Pública" (ONRAP) to tackle administrative reform. The perception that this was a purely technical issue, the absence of political connections within the government and the lack of pragmatism determined that ONRAP's main

product was a diagnosis of Peruvian public administration problems in 40 volumes, with no practical consequences of any kind.

The military government also attempted several times to implement public administration reforms. One of these attempts resulted in the creation of the "Instituto Nacional de Administración Pública" (INAP). The INAP did not restricted itself to pure organizational reforms but sought to create a bureaucracy under the conception of a "new State". At the beginning of the military government conditions for reform seemed ideal: rapid and large expansion of State intervention in the economy, including entrepreneurial activities, sweeping social reforms, more specific sectorial divisions (several new ministries were created in the aftermath of the coup), and a new development philosophy in which the State was the engine of accumulation and development.

However, INAP had a fate similar to its predecessor ONRAP. After initial enthusiasm, the reform movement languished mainly due to absence of political support. The final proposal of INAP, after a strong internal struggle, was irrelevant if contrasted with existing problems. One of the main factors influencing this outcome was, once again, the domination of the process by "experts" lacking a political perspective. INAP was created as an isolated entity and with great autonomy from the rest of the State apparatus. This was advantageous for experts who were able to concentrate on technical issues free of pressures from the rest of the bureaucracy, but at the same time this determined that INAP's lack of power and capacity ultimately provoked indifference from the public administration, who in many instances perceived them as a nuisance.

By 1977 there were around half a million persons working in the public sector, including the central government, public enterprises, the Judiciary, the educational and health systems, etc. In 1978, the government applied strong pressure and offered tempting incentives to reduce the bureaucracy because it needed to drastically cut the public sector deficit. According to recent studies, the result of these policies was that the better qualified left and those who had no alternative remained. Public enterprises in particular, suffered the loss of valuable staff, that had been trained with public resources.

When President Belaúnde took office in July 1980 he found an over-sized, inefficient and poorly structured public sector. Even though public sector reform was not a relevant point of its programme, the Belaúnde government sought assistance from abroad, mainly from the World Bank, to improve the management capacity of key decision-making agencies and

ministries, as well as to rationalize the entrepreneurial activities of the State. It also emphasized the need to count on reliable data for decision-making, in critical areas such as the national budget. However, the concentrated nature of the programmes and lack of political support limited the impact of the efforts to improve public sector administration.

The APRA administration is also trying to tackle the structure of the State apparatus, which government officials identify as one of the biggest obstacles to implement the government programme. Although State employees have proven to be adequate conduits for pumping income into the economy, they are not very efficient instruments in applying government policies. The President himself has repeatedly railed against the poor performance and the insensitivity to the countries plights of the civil servants.

Currently, there are about 600,000 people on the government payroll, that represents almost 9% of the total workforce. However, when matched up against the portion classically defined as "adequately employed", the proportion reaches more than 26%. If some 300,000 employees of State corporations are included, then the government controls nearly half of the adequately employed workforce.

Education accounts for about half of the total public administration, followed by Interior with 19%, Health with 14%, Agriculture and Transport with 4% each, and Economy and Finance with 3%. Nearly 40% of all public sector employees, excluding one minor welfare agency and the National Police Force, are concentrated in Lima.

Concentration in the capital city, inefficiency, uncoordinated functions and widespread corruption seriously affect public sector performance. Critical agencies for public finances, like the internal revenue service, and for social services, like the social security system, are suffering from these acute problems.

This time administrative reform is based on an audacious decentralisation policy that seeks to give more autonomy to the regions, the local governments and to increase popular participation in the design and implementation of development programmes. The President has underscored the importance of this policy and has travelled frequently to the provinces to hold meetings with the population and confront authorities with the claims made by their constituencies.

Research on public administration is based at INAP and, to a lesser extent,

at the "Escuela de Administración Pública" (ESAP), its training branch. The "Escuela de Negocios para Graduados" (ESAN) and the "Universidad del Pacífico" (UP), also carried out research with World Bank support, but follow up to the initial studies through curricular changes and implementation of training programmes was never fully achieved.

13.-DECENTRALISATION

Indicators mentioned in previous sections of this document reflect the centralised character of the Peruvian economy. The problem of excessive centralised power has been under discussion since the beginnings of the republic and even before during Spanish rule. However, proposals to decentralise the country's decision-making instances always encountered strong opposition and even provoked more than one internal armed conflict.

Pressure to implement decentralisation policies intensified since the 1930's with the upsurge of mass politics. However, the 1960's and the 1970's witnessed an accelerated development of popular organization in the regions and an increasing demand for a reduction in Lima's power. The military government tried to implement a strictly administrative decentralisation, but its proverbial manipulatory approach found little support in the regions. Besides, the transference of resources to regional development organizations was minimal: 0.63% and 1.64% of central government expenditure in 1978 and 1979, respectively.

The 1979 Constitution provided the basic legal framework to transfer decision-making power and financial resources to the regions, but the government of Fernando Belaúnde advanced little in this respect. Departmental organizations that existed since the military government were re-named but no substantial improvements in their power and management capacity took place, with very few exceptions on an *ad-hoc* basis.

The APRA government displayed efforts to decentralise public administration and pass a law in Congress to define regions and ways of decentralising without too much disruption.

Part of the efforts have been aimed at setting up new tiers of project execution. The concept of "micro-regions" has prevailed in order to sidestep the bureaucratic bottlenecks and focus attention on critical poverty areas. Additionally, in July 1986, President García announced that the 1987 budget will authorize operational autonomy for the departmental

development agencies (called "Corporaciones Departamentales de Desarrollo"). The President himself is continuously pressing Congress for the bill which will establish regional governments, larger administrative organizations which theoretically would function like federal states.

The Peruvian banking system, part of which is currently in the process of being expropriated, was required to set up regional branches with strict requirements for keeping financial resources in the areas where they are collected.

More vaguely, the President is dropping the idea of moving the capital to some place in the Andes. The most specific statements mention the Central Andean region (Huancayo), following the example of Brazil and, more recently, Argentina. The INP's Medium Term Plan mentions the possibility of transferring the capital, but in its timetable the move would not be studied before 1988, which means that there would probably be no action in that direction until after 1990.

The issues at stake are numerous and extremely important in economic, political and social terms. If the experiment is successful, education, health, development of infrastructure, and popular participation can benefit. However, many questions as to whether existing facilities and human resources would be able to cope with the demands of the population and assume the functions delegated by government.

Public supported research is also part of the decentralisation process. For instance INIAA is currently transferring responsibilities to regional agencies and research centres. Pilot experiences have started with the mining and the agricultural sector. Puno has been chosen as the first region to be created for decentralisation purposes. One of the issues currently emerging is the role that local and Lima-based non governmental organizations can play in supporting local governments and public development agencies.